ENVIRONMENT & NATURAL RESOURCES

1. OVERVIEW

MISSION

Environment and Natural Resources (ENR) works with all people and interested organizations to protect our environment by making sure our resources are used wisely and that people understand their part in keeping the environment healthy.

GOALS

1. The Northwest Territories' (NWT) air, land, water, wildlife, and forests are protected.
2. The NWT's natural resources are used and developed wisely in accordance with the Sustainable Development Policy.
3. Knowledge is gained through cooperating and sharing information with other organizations and people interested in the environment.
4. The NWT's environment and natural resources are managed with the understanding that forests, wildlife, air, land, and water are connected.

PROPOSED BUDGET ($000)

Total Operating Expenses	$68,308
Compensation & Benefits	$30,207
Grants & Contributions	$5,977
Other O&M	$29,934
Amortization	$2,190
Infrastructure Investment	$1,653

PROPOSED POSITIONS

Headquarters (HQ)	87 positions
Regional/Other Communities	220 positions

KEY ACTIVITIES

- Corporate Management
- Land and Water
- Environment
- Forest Management
- Wildlife

STRATEGIC ACTIONS

The department will take the following actions in support of the government's strategic initiatives:

Managing This Land

- Continue to Develop Governance
  - Develop and Implement a Land Use Framework
  - Land Use Planning Analyst

- Protect Territorial Water
  - NWT Water Stewardship Strategy
  - Aquatic Ecosystem Indicators
  - Protect Public Water Supply: Source Water Protection

- Mitigate and Adapt to Climate Change Impacts
  - Climate Change Adaptation Plan
  - Delivery of Greenhouse Gas Strategy
  - Biomass Strategy Implementation
  - Wind Energy Development
  - Support for Geothermal Technology

- Environmental Stewardship
  - Stewardship – Managing Key Resources
  - NWT Barren-ground Caribou Management Strategy (2011-2015)
  - Species at Risk (NWT) Act
  - Wildlife Act
  - Risk Management Strategies - Community Protection Plans
  - Waste Recovery Program
  - Traditional Knowledge Implementation Plan
  - NWT Protected Areas Strategy – Critical Wildlife Areas
  - Cumulative Effects Monitoring

Maximizing Opportunities

- Maximize Benefits from Resource Development & Related Initiatives
  - MGP Strategic Investment – Permits and Regional Capacity

Reducing the Cost of Living

- Address Factors that Impact the Cost of Goods
    - Increased Community Presence of the Arctic Energy Alliance
    - Energy Efficiency Incentive Program
    - Business Support Program

Refocusing Government

- Strengthen Service Delivery
    - Science Agenda Implementation

2. EMERGING ISSUES

The NWT is facing many challenges. Resource development, climate change, economic uncertainty, new technologies, health risks, social change, and evolving approaches to resource and environmental management all require the Government of the Northwest Territories (GNWT) to adapt its legislation, programs, and services.

ENR has an aggressive agenda to complete during the life of the 16th Legislative Assembly. The Department is also aware of the high expectations of NWT residents to deal with the many pressing environmental issues. These include the following.

Governance

Achieving significant progress towards northern control over the administration of lands, water, the regulatory system, and resource revenues is a priority of the GNWT. Fundamentally, the GNWT envisions a regulatory system where decisions regarding the use of NWT lands are made in the NWT. Currently, Indian and Northern Affairs Canada (INAC) is responsible for the management, administration, and control of land, water, minerals, oil and gas, and the environment in the NWT. As management responsibilities are devolved, the GNWT increases its ability to serve the interests and self-sufficiency of residents while promoting effective, efficient, and coordinated development of natural resources. These shifts in management responsibility will require consideration of capacity within the Department, as well as appropriate management strategies.

Protecting Territorial Waters

NWT residents place a high value on the NWT's lands and waters and look to the GNWT for leadership in ensuring these are protected. The quality and quantity of water resources and the health of aquatic ecosystems are of growing concern as pressures increase within the NWT and elsewhere. While scientific water monitoring data from the federal government generally suggests that overall water quality is good, residents have repeatedly voiced concerns about changes they have observed. Groups involved in the protection of water resources must have access to reliable information.

The Mackenzie River Basin is the largest freshwater river basin in Canada. Our actions, as well as our upstream neighbours' actions, are important. Increased pressure is being placed on water resources in the Basin from rapidly developing upstream energy projects, such as oil sands and hydroelectricity, as well as climate change. This pressure drives the need to complete Transboundary Water Management Agreements with upstream jurisdictions, including Alberta, British Columbia, Saskatchewan and Yukon as soon as possible.

Climate Change Mitigation and Adaptation

Climate change remains a serious issue for the NWT. The demand for energy efficiency and alternative energy programs is increasing as the price of fuel continues to rise and NWT residents, communities, and businesses try to reduce their energy costs and use of imported fossil fuels. Reliable, affordable, and clean energy is a key to the sustainable development of our economy, a lower cost of living, and enhanced quality of life. A carefully planned and coordinated approach is essential to identifying low cost sources of energy and ensuring that we meet our demands for energy and our obligations to reduce greenhouse gas emissions. To ensure success of these objectives, ENR will need to work with energy partners to prepare detailed plans of action to enhance the use of alternative energy sources.

The extensive forested areas of the NWT could provide a sustainable source of renewable energy to many communities and residents. Likewise, without increased emphasis on wind and geothermal, along with energy efficiency initiatives, the NWT will continue to be dependant on fossil fuels. ENR recognizes that climate change is already impacting the NWT and its residents and, even with local and global action to reduce greenhouse gas emissions, the NWT will continue to experience impacts. Residents will need assistance in adapting to these impacts, as well as guidance and support in mitigation.

Caribou and shared wildlife populations

Barren-ground caribou are important to the culture, health, and well-being of NWT residents, especially those in small communities. Caribou herds cycle naturally but when they are at low numbers, harvest and predation can strongly affect the rate of recovery. Current management plans for all herds do not exist and are being developed or initiated. These plans are critical for identifying appropriate actions depending upon whether herds are decreasing, stable, or increasing. Extensive consultation is required to develop these plans.

The NWT shares responsibility for managing several wildlife populations, including a number of endangered or threatened species, with neighbouring jurisdictions. Shared populations include barren-ground, mountain, and woodland caribou, as well as polar bear. These species play an important role in the cultural, economic, and spiritual lives of many NWT residents. Shared management agreements need to be developed to ensure human activities do not impact the heath or productivity of these wildlife species.

Environmental Stewardship

Environmental stewardship ensures the ongoing protection and wise use of our environment and natural resources. This responsibility is shared among all levels of government, co-management boards, organizations, industry, and NWT residents. Human activities affect the natural environment. Waste products fill landfill sites, using up valuable land and creating potential environmental hazards. Programs are needed to protect the environment and reduce our footprint on the environment, such as reducing the amount of waste that goes into landfills.

ENR recognizes the growing issue with e-waste and will need to assess options to deal with this waste stream as well as continuing to consult with NWT communities, businesses, aboriginal governments, and residents on improvements and expansions for the program. NWT residents have also identified tires, lead acid batteries, and fuel drums as priority areas for expansion of the waste reduction and recovery program.

People engage in a range of activities on the land that use natural resources. These activities have an impact on NWT ecosystems, affecting how the land functions and what resources are available for use in the future. Identifying the current condition of the environment and monitoring activities on the land to detect changes early must be completed before impacts to the land become significant or irreversible. Sensitive northern ecosystems change constantly as a result of shifts in climate and resource development both within the NWT and beyond its borders.

Knowledge about the land and its resources informs management decisions such as environmental monitoring, planning, and environmental impact assessment. Knowledge gained through scientific research and monitoring, as well as experience on the land, contributes to our understanding of broad ecosystem functions and the impact human activities have on our land and people. Understanding these connections helps predict how the land might change in the future and helps us identify appropriate management solutions. Potential impacts can be avoided or decreased.

The GNWT's ability to effectively assess the impacts of development and mitigate effects that may accumulate depends on the information available. Baseline data informs resource management, land use planning, protected areas establishment, and environmental impact assessment processes. Giving consideration to traditional knowledge along with western science in research and management decision-making remains important for ENR. A crucial part of environmental knowledge is ensuring that accurate, up-to-date information is readily accessible to decision-makers. Information management systems enhance how information can be used to advance knowledge and understanding.

Creating protected areas is a key tool for environmental stewardship. The NWT Protected Areas Strategy was developed in partnership with communities, Aboriginal governments, federal agencies, industry, and environmental non-government organizations to identify and establish a network of protected areas in the NWT. Completing the work of establishing identified areas for protection is critical to the long-term success of the Protected Areas Strategy.

Resource Development and Related Initiatives

The Mackenzie Gas Project has the potential to be the single most significant economic development opportunity in the history of the NWT, and subsequent exploration and development activity is expected to drive the economy of the NWT for decades to come. The construction of this Project and subsequent induced development will result in the resurgence of the oil and gas industry in the NWT to the point that if it proceeds, will be the largest driver of the NWT economy over the next 30 to 40 years.

The GNWT needs capacity to participate effectively in regulatory reviews and manage the impacts of development. A number of major projects will challenge existing resources. These include the conclusion of the Mackenzie Gas Project review process, and ongoing and emerging environmental assessments like the Taltson Hydro expansion and Giant Mine Remediation project.

ENR issues authorizations under its legislated mandate (*Wildlife Act, Environmental Protection Act, Forest Management Act, Forest Protection Act, and Pesticide Act*). ENR also coordinates GNWT participation in environmental assessments, environmental impact reviews, and environmental agreements, and acts as an expert advisor to review agencies doing environmental impact assessments and regulatory reviews. The number and complexity of development projects under review means considerable incoming and outgoing information must be managed in a manner that allows the GNWT to track authorizations and commitments effectively.

Best management practices are used to guide industry and regulatory agencies in the prevention and reduction of impacts to the environment, forests, and wildlife, and to encourage the use of innovative practices. These are particularly important to manage mineral and oil and gas development in the NWT and to reduce cumulative impacts. As development activities increase on the land, the greater the potential for environmental degradation if up-to-date best management practices are not used or are not available. As the pace of development increases, guidance is needed to ensure that development proceeds in a manner that minimizes impacts to the environment.

Forest Management and Protection

The NWT requires a framework for forest management to ensure sustainable management of forest resources based on ecological concepts. Legislation recognizing fire as a significant and natural phenomenon in the boreal forest of the NWT is also required. The existing *Forest Protection Act* and *Forest Management Act* do not provide the tools necessary to manage forest resources consistent with federal commitments to sustainable forestry, the NWT Sustainable Development Policy, and forest management principles in use today. As well, these Acts do not adequately address consultation with Aboriginal organizations, lands, resources, and self-government agreement provisions, and Aboriginal rights. ENR also has no formal Forest Management Policy defining the GNWT's commitment to, and tools for, achieving sustainable forest management.

In the NWT, ENR is responsible for providing wildland fire management services. The cost of fighting wildland fires during the last several years has been considerably more than the total funding available to the program. The program is also facing challenges related to the replacement of aging infrastructure, the need to protect communities through risk mitigation approaches, and increased costs associated with fire response. As the cost and impact of managing wildland fires continues to increase, coupled with the potential implications of climate change, there is a need to ensure a program is in place that meets requirements for preparedness while being cost effective. It is logical to assume that the frequency and intensity of fires will change as the climate changes. A longer fire season associated with changes in precipitation and temperature, along with additional stresses to forest and vegetation such as drought, flooding, insects, and disease, reinforce the need to identify how the program can overcome challenges and operate effectively.

Adequate and timely regeneration following the removal of forest vegetation is necessary to maintain the long term sustainability of NWT forests. Failure to ensure adequate regeneration will negatively impact the long term availability of forest resources. Increased interest in commercial forestry, continued use of forest vegetation for fuel wood and other domestic purposes, and use related to oil and gas exploration and development has resulted in considerable losses to forest vegetation. All of these activities have implications for forest renewal. As well, the cost of reforestation activities in the NWT has increased dramatically in recent years, making traditional renewal approaches costly to implement. There is a need to explore feasible alternatives to ensure forests are renewed and sustainable management can be achieved.

Strengthening Service Delivery

The GNWT needs a strong public service to carry out effective governance strategies and actions to manage the environment and natural resources. With 27 percent of ENR's total workforce and 79 percent of ENR's senior managers eligible for retirement within the next decade, succession planning is necessary to ensure gaps in the workforce are minimized. It is important that ENR ensure the right staff is in the right place at the right time. Gaps in the workforce must be addressed. Present and future staff must have sound knowledge, skills, and abilities required for their positions.

ENR will continue to work collaboratively with its management partners and the public to preserve NWT waters, manage declining caribou herds, manage forest landscapes and resources, meet its consultation obligations to Aboriginal governments and organizations, legislate effectively, complete a network of protected areas, take action on climate change, implement programs to reduce waste, manage the impacts of development, increase the use of traditional knowledge, support the development of alternative energy and emerging technologies including biomass, and prepare risk management strategies.

3. 2011-12 PLANNING INFORMATION

The detailed description of planned activities for the department includes the following sections:

a) **Fiscal Position and Budget** provides information on the department's operation expenses and revenues.

b) **Key Activities** describes the department's major programs and services, including strategic activities, as well as results to date and measures.

c) **Infrastructure Investments** gives an overview of the department's infrastructure investments to date and activities planned for 2011-12.

d) **Legislative Initiatives** provides a summary of the department's legislative initiatives during the 16th Legislative Assembly as well as initiatives planned for 2011-12.

e) **Human Resources** includes overall statistics and position reconciliation, information on capacity-building activities as well as departmental training and development.

f) **Information Systems and Management** describes department-specific information and management systems as well as major initiatives planned for 2011-12.

a) Fiscal Position and Budget

DEPARTMENTAL SUMMARY

	Main Estimates 2011-12	Main Estimates 2010-11	Revised Estimates 2009-10	Actuals 2008-09
			($000)	
OPERATIONS EXPENSE				
Corporate Management	10,859	10,737	8,308	10,072
Land and Water	4,527	3,629	4,141	2,969
Environment	9,274	9,345	7,565	3,846
Forest Management	28,473	27,726	27,503	29,674
Wildlife	15,175	14,323	13,504	13,904
TOTAL OPERATIONS EXPENSE	68,308	65,760	61,021	60,465
REVENUES	1,920	1,957	2,148	1,661

OPERATION EXPENSE SUMMARY

	Main Estimates 2010-11	Proposed Adjustments: Forced Growth	Proposed Adjustments: Strategic Initiatives	Proposed Adjustments: Sunsets and Other Ijustments	Proposed Adjustments: Internal llocations	Proposed Budget 2011-12
			($000)			
Corporate Management						
Directorate	2,472	77	-	-	-	2,549
Policy & Strategic Plant	884	45	-	-	-	929
Shared Services	3,186	115	-	(83)	-	3,218
Field Support	1,390	13	-	(45)	-	1,358
Corporate Costs	2,644	-	-	-	-	2,644
Amortization	161	-	-	-	-	161
Total Activity	**10,737**	**250**	**-**	**(128)**	**-**	**10,859**
Land & Water						
Program Mangement	2,768	25	943	(100)	-	3,636
Environmental Assessm	861	30	-	-	-	891
Amortization	-	-	-	-	-	-
Total Activity	**3,629**	**55**	**943**	**(100)**	**-**	**4,527**
Environment						
Program Management	731	13	-	-	-	744
Environmental Protecti	1,813	69	-	(92)	-	1,790
Energy Management	6,801	9	830	(900)	-	6,740
Amortization	-	-	-	-	-	-
Total Activity	**9,345**	**91**	**830**	**(992)**	**-**	**9,274**
Forest Management						
Program Mgmt & Presu	18,305	797	-	-		19,102
Suppression	4,540	-	-	-		4,540
Forest Resources	3,188	90	-	(140)		3,138
Amortization	1,693	-	-	-		1,693
Total Activity	**27,726**	**887**	**-**	**(140)**	**-**	**28,473**
Wildlife						
Wildlife Management	782	308	-	-	-	1,090
Wildlife Support	2,534	-	100	(256)	-	2,378
Technical Support	5,229	-	1,000	(300)	-	5,929
Field Operations	5,442	-	-	-	-	5,442
Amortization	336	-	-	-	-	336
Total Activity	**14,323**	**308**	**1,100**	**(556)**	**-**	**15,175**
TOTAL DEPARTMENT	**65,760**	**1,591**	**2,873**	**(1,916)**	**-**	**68,308**

REVENUE SUMMARY

	Proposed Main Estimates 2011-12	Main Estimates 2010-11	Revised Estimates 2009-10	Actuals 2008-09
		($000)		
GENERAL REVENUES				
Timber Permits and Licenses	5	10	25	11
Hunting and Fishing Licenses	600	620	800	602
TOTAL	605	630	825	613
OTHER RECOVERIES				
Mutual Aid Resources Sharing Agreement	300	300	300	29
TOTAL	300	300	300	29
CAPITAL				
Deferred Capital Contributions	1,015	1,027	1,023	1,019
TOTAL	1,015	1,027	1,023	1,019
REVENUES	**1,920**	**1,957**	**2,148**	**1,661**

b) Key Activities

KEY ACTIVITY 1: CORPORATE MANAGEMENT

Description

The Corporate Management activity provides overall management, strategic planning, communication, and leadership to the Department's divisions and regions. Divisions and Units within this activity enable the Department to respond effectively to the environmental and resource management priorities of NWT residents.

The Corporate Management activity is carried out through Directorate, the Policy and Strategic Planning Division, Corporate Shared Services (Finance and Administration and Informatics Divisions), and the Field Support Unit.

Directorate provides overall leadership, management, and strategic planning for the Department.

Policy and Strategic Planning provides policy, legislative, strategic planning, coordination, and communications and media relations support to the Department to make informed decisions on environmental and resource management issues.

The Field Support Unit provides regional and divisional support on activities related to traditional knowledge, Aboriginal relations, licensing, compliance, public education, and employee training.

Finance and Administration provides budgetary, accounting, and financial management services to the Department. These services include providing advice to senior management on financial management, financial control, information systems, contracts, contributions, capital planning, and the acquisition and maintenance of equipment.

Informatics provides broad Information Management Services including Records and Library Services, Geomatics and Geographic Information Systems and analysis, Information Systems development, implementation and operations, and strategic advice and guidance on the use of information and technology in support of programs and services.

Major Programs and Services 2011-12

Overall

Activities for Corporate Management in 2011-12 will continue to involve close working relationships with other GNWT Departments, Aboriginal governments and agencies, and the Federal government to advance work on land, water, renewable resources, and environmental issues, including improvements to the regulatory system in the NWT.

ENR will continue to work closely with the Federal government in its approach to regulatory system improvement. This will involve engaging with INAC and the Chief Federal Negotiator to review proposed legislative amendments to the *Mackenzie Valley Resource Management Act*, the *NWT Waters Act*, and new NWT surface rights legislation, as well as proposed restructuring of the NWT land and water regulatory regime.

ENR will engage with the new CanNor Agency, and in particular the new Northern Project Management Office (NPMO), to identify ways of working together and advancing NWT interests. The NPMO was established to coordinate Federal input into major natural resource projects and offer a single point of contact for clients.

In cooperation with INAC and on its own, ENR will consider ways to increase the NWT's capacity for assessing cumulative impacts to valued ecosystem components in the NWT that may become degraded as ecosystem health and diversity change. The past, present, and future trends of these ecosystems rely largely on comprehensive research and monitoring programs. ENR is working to develop partnerships in these regards.

Work will continue in cooperation with the Department of Aboriginal Affairs and Intergovernmental Relations to develop tools and strategies to ensure ENR meets its Aboriginal consultation obligations.

ENR will build on its work in 2010-11 to participate as one of three GNWT pilot departments to develop a Human Resources Plan. In 2011-12, this work will involve the development of an implementation plan and the initiation of a Succession Plan for ENR.

Building on its Strategic Plan, to be completed in 2010-11, ENR will develop an implementation framework for meeting Strategic Plan objectives.

As lead department for the GNWT Sustainable Development Policy, ENR will undertake a review of its implementation.

Corporate Management will support policy and legislative development related to wildlife, forest and water management, recycling, energy, and climate change.

The Field Support Unit will continue to focus on establishing strong relationships with the regions and divisions in order to provide added value to their existing projects and programs and help develop activities for the future. The main focus of the unit will be the development of a pilot Hunter's Education program, with broad input from the regions and Wildlife Division, the implementation of the departmental Training Strategy, the implementation and/or further development of compliance and licensing databases, and ongoing Aboriginal liaison advice for large departmental initiatives.

Environment & Natural Resources

Strategic Initiatives

Traditional Knowledge Implementation Plan

The Traditional Knowledge Implementation Plan is led by ENR, which is responsible for the government-wide implementation of the GNWT Traditional Knowledge Policy, ensuring that traditional knowledge is considered in government activities. To date, an Interdepartmental Traditional Knowledge Committee has been formed, and a 2009-10 annual report of government traditional knowledge activities and a summary of best practices were produced. ENR has developed a Traditional Knowledge Implementation Plan specific to the Department to ensure that traditional knowledge about the natural environment is taken into consideration in all environmental management actions and decisions of the department.

For 2011-12, the Traditional Knowledge Coordinator will continue to work with regions and divisions to identify wildlife and forest research needs within ENR and to provide advice on how best to apply traditional knowledge in day-to-day activities. ENR will continue to supply consistent traditional knowledge orientation and awareness training to its employees and share best practices amongst departments. Expected outputs include an options paper on an expanded library portal to access all traditional knowledge materials and the formation of an internal ENR working group.

Future plans include the ongoing building of collaborative relationships with traditional knowledge holders through their communities, boards, and governments in order to fully implement the traditional knowledge plan and the GNWT Traditional Knowledge Policy

A project to reflect traditional values in hunter education programs will be developed with the Wildlife Division and reported under the Caribou Management Strategic Initiative.

Develop and Implement a Land Use Framework

The Integrated Landscape Management (ILM) System was introduced during 2010-11 to enable the collection and sharing of data and information related to land use. The system supports a collaborative shared approach to decision-making and allows departments to share their information relative to the Land Use Framework. During 2010-11, the focus was on implementing the technology services to support the vision and to implement the governance structure necessary to support such a shared approach to managing this information. During 2011-12, system enhancements will include the development of line of business applications for the analysis and presentation of information, and pursuing partnerships with other information producers such as the Land and Water Boards, Federal government departments, and Aboriginal governments to support further integration, collaboration, and sharing.

Four Year Business Plan Update

Results to Date

The Corporate Management activity underwent a reorganization to address increasing activity related to land and water management through the creation of a new Land and Water Division. This focus enabled the department to make a concentrated effort, working with water management partners, towards the development of an NWT Water Stewardship Strategy. The Land and Water Division is headed by a Director, reporting to the Assistant Deputy Minister, Corporate and Strategic Planning.

Environment & Natural Resources

The Environmental Assessment and Monitoring Unit, previously housed in the Environment Division, and the Protected Areas Strategy Secretariat, previously housed in the Wildlife Division, were moved into the Land and Water Division to help strengthen the linkages of land use planning, the assessment and regulation of development activities, the monitoring of change on the landscape, and adaptation of management processes to deal with that change.

Departmental resources were reallocated to create a new Field Support Unit to provide enhanced regional coordination and support to regions and divisions, especially in relation to use of traditional knowledge, Aboriginal relations, licensing, compliance, public education, and staff training. This Unit is led by the Head, Field Support Unit, and reports to the Assistant Deputy Minister, Operations.

An ENR Traditional Knowledge Implementation Plan was finalized, and a Traditional Knowledge Best Practices document and an Annual Traditional Knowledge Report for all of the GNWT were developed. An interactive caribou DVD was developed in cooperation with the Wildlife Division, and was widely distributed to the regions. The Unit provided training to regions and divisions on traditional knowledge and officer safety.

ENR, in partnership with numerous NWT governments and organizations prepared and released the 2010 Special Edition State of the Environment Biodiversity Report to coincide with the International Year of Biodiversity. The Biodiversity Report provides the necessary information to understand what components of the NWT's biodiversity are changing and why. This information is used to assess the success of our actions in biodiversity conservation and sustainable use of resources in the NWT and to plan for the future.

KEY ACTIVITY 2: LAND AND WATER

Description

Land and water programs are those that stem from federal environmental legislation that have GNWT obligations, such as the *Mackenzie Valley Resource Management Act*, as well as related partnership initiatives such as water stewardship and cumulative effects. Key program areas include regional land use planning, protected areas, environmental impact assessment and management, and water stewardship. The Land and Water Division houses the NWT Protected Areas Strategy (PAS) Secretariat (which is shared with INAC).

Regional land use plans integrate these interests, ensuring NWT values on the landscape are protected or conserved by defining where development can occur and under what general conditions. Consistent with regional land use planning, the NWT PAS protects special natural and cultural areas and core representative areas within each eco-region.

Environmental Assessment and Monitoring (EAM) functions include overseeing ENR's input into preliminary screenings of regulatory applications and renewal of permits and licenses, as well as the GNWT's participation in environmental assessments and environmental impact reviews, and improvements such as guidelines or proposed amendments to the NWT land and water regulatory system.

Water Stewardship functions involve the ongoing implementation of the NWT Water Stewardship Strategy with other water management partners. GNWT focus areas include transboundary water issues, community public water supply source protection, and aquatic ecosystem indicators, as well as federal/provincial/territorial initiatives related to water resources management.

Major Program and Service Initiatives 2011-12

Overall

The GNWT continues to participate in the development, approval, and review of regional land use plans. Progress is contingent upon timelines set by regional land use planning boards and committees. It is anticipated that in 2011-12, following approval by Aboriginal governments and prior to approval by the Federal government, the GNWT will need to review the Final Draft Sahtu Land Use Plan; a revised Gwich'in Land Use Plan; the Final Draft Interim Dehcho Land Use Plan; and a draft of an Upper Thelon Land and Resource Management Plan.

To advance the NWT Protected Areas Strategy, the GNWT will continue its participation in all candidate areas and will focus efforts to advance GNWT's goal of evaluating up to six territorial candidate protected areas.

Work to implement the NWT Water Stewardship Strategy will require leadership to coordinate advancing the Strategy as a whole and initiatives related to our residents' interests in transboundary water management, comprehensive research and monitoring related to biological indicators, the protection of community public water supplies, and shared national interests such as the development of a national water agenda to advance Environment Ministers' strategic directions.

Environment & Natural Resources

EAM continues to coordinate GNWT departmental reviews of environmental assessments and environmental agreements, as well as the development of guidance documents. EAM, in cooperation with Informatics, will continue to enhance the Environmental Assessment Tracking System.

Strategic Initiatives

The following describes how 2011-12 Strategic Initiative funding will be used to address the identified GNWT priorities:

Land Use Planning Analyst

A Land Use Planning Analyst will be hired to ensure that a comprehensive approach to regional land use plans, watersheds and protected areas is taken in the context of the Land Use Framework.

NWT Water Stewardship Strategy

ENR will advance negotiations of a Bilateral Agreement with Alberta, develop an agreement with the Federal government on the management of municipal wastes, and advance related research and monitoring.

Aquatic Ecosystem Indicators

Building on workshops held in 2010, ENR will further define and build a program to track biological indicators that signal early changes to the environment before these are irreversibly harmful. This will include working to enhance and implement research partnerships such as the Wilfred Laurier-GNWT Contribution Agreement and community-based monitoring.

Protect Public Water Supply: Source Water Protection

ENR works with communities and GNWT departments (Municipal and Community Affairs, Health and Social Services, and Public Works and Services) to develop a risk assessment, management, and communications program to ensure community public water supply sources are protected. This work includes research and development work related to the management of municipal wastewater effluent in Canada's Far North under Canada's national strategy. Community workshops will be held in 2011-12.

NWT Protected Areas Strategy – Critical Wildlife Areas

The GNWT, PAS partners and all residents of the NWT now have the opportunity to secure a network of protected areas that will protect our natural heritage and culture for future generations. In 2011-12, funding will be used to advance candidate areas, including ensuring renewable resource assessments are completed and GNWT participates in all candidate area working groups. As the sponsor, ENR plays a leadership role in work planning and working group meetings for the Buffalo Lake River and Trails Candidate Critical Wildlife Area. ENR anticipates sponsorship of the Yambahti (Daring Lake) Candidate Critical Wildlife Area within the current fiscal year.

Cumulative Effects Monitoring

In 2011-12, work will be done to establish and administer an ENR funding program to increase community capacity to address cumulative effects on valued components of NWT ecosystems.

Four Year Business Plan Update

Results to Date

The Land and Water Division represents a new Activity for ENR, encompassing functions formerly carried out under Corporate Management. Primary accomplishments in 2009-10 and 2010-11 were the completion of the NWT Water Stewardship Strategy and its associated action plan, the successful establishment of Saoyú-ʔehdacho National Historic Site through the NWT PAS, GNWT sponsorship of the Buffalo Lake Candidate Protected Area, and the development of the NWT PAS Establishment Action Plan. An assessment of current information available regarding aquatic ecosystems was undertaken to prepare for bilateral transboundary water resources agreements and built upon through additional study. The following highlight specific accomplishments in each of the program areas.

Water Stewardship

The final Strategy, *Northern Voices, Northern Waters: NWT Water Stewardship Strategy* serves broad interests and defines a path forward to ensure NWT waters are protected into the future. This Strategy builds on a 2008-09 discussion paper and widespread public input that led to a draft Strategy in November 2009. The final Strategy, released in May 2010, has a common vision, principles, and goals in place. These serve as a foundation for negotiations of transboundary agreements with other jurisdictions. ENR undertook work to develop an action plan during summer/fall 2010. This work helps ensure that, "the waters of the NWT will remain clean, abundant, and productive for all time."

The Strategy set a foundation towards actions to address Transboundary Water Management Agreements with upstream jurisdictions in light of the rapid pace of energy development, such as oil, gas, and hydroelectric projects in the upstream reaches of the Mackenzie River Basin (MRB). Background information was gathered in 12 areas of interest identified in a Memorandum of Understanding towards an Alberta-NWT bilateral agreement signed in 2008, including aquatic ecosystem indicators and policy and legal obligations. Particularly, more work is required in the areas of aquatic ecosystem information (including indicator areas), groundwater, and policy and legal obligation. In 2009, working with other MRB jurisdictions, a Bilateral Water Management Agreements Guidance Document was produced to facilitate future transboundary negotiations, especially with Alberta and British Columbia. Strategic discussions with the federal government and the governments of Alberta and British Columbia continued throughout 2010.

Another GNWT focus area addresses the protection of community public water supply watersheds builds on the 2008-09 community watershed mapping and 2009-10 risk assessment and management work, including obligations under *Canada-wide Strategy for the Management of Municipal Wastewater Effluent*. All of this work relies on having a defined set of aquatic ecosystem indicators that help detect change over time. Key areas include the Peace-Athabasca Delta, Slave and Mackenzie Deltas. Scientific, traditional and local knowledge inform understandings of these study areas. To ensure research that is meaningful to the NWT is undertaken, academic and other partnerships continue to be built to work with communities. A Contribution Agreement between the GNWT and the Wilfrid Laurier University (Laurier), set for at least 10 years in 2010, will provide a contribution of $2 million to assist Laurier in acquiring the necessary research infrastructure for the Canadian Aquatic Laboratories for Interdisciplinary Boreal Ecosystem Research Program (CALIBER). CALIBER is in place to develop leading-edge scientific studies to facilitate well-informed water resource management decisions that would ensure the sustainability of northern ecosystems. Laurier's research priorities align well with the GNWT Science Agenda. The GNWT and Laurier will enter into a collaborative scientific research partnership with an ultimate objective of better understanding how NWT aquatic ecosystems may be impacted by climate change and energy development, particularly within transboundary watersheds.

Regional Land Use Planning

Sahtu Land Use Plan: Review of a third draft of the Sahtu Land Use Plan occurred in 2010. Dialogue continues with the Sahtu Land Use Planning Board towards a draft that can be approved by the Sahtu Secretariat Incorporated, the GNWT and the Federal Government.

Gwich'in Land Use Plan: A 5-year review of the Gwich'in Land Use Plan, the only signed regional land use plan in the NWT, continued in 2010.

Interim Dehcho Land Use Plan: The GNWT continues to work with the Dehcho Land Use Planning Committee through its member to advance an Interim Dehcho Land Use Plan.

Upper Thelon: The Minister of the federal Department of Indian and Northern Affairs Canada called for an Upper Thelon Land and Resource Management Plan to address issues arising from uranium exploration in 2008. In March 2010 a preliminary draft was released to Aboriginal Parties. Aboriginal governments, the GNWT and the federal government continue to discuss how viable land use planning might occur in this area of active and overlapping resource development interests so that all parties may be well served.

The GNWT continues to ensure that protected areas are established in the context of regional land use plans wherever possible.

NWT Protected Areas Strategy – Establishment Action Plan (2010-2015)

The Establishment Action Plan (EAP) will guide the direction of the PAS over the next five years and outlines objectives and tasks for PAS partners as they work together towards the establishment of up to 12 additional protected areas. The GNWT will evaluate up to six territorial candidate protected areas. The EAP also describes the work needed to assist unsponsored areas seeking protection, increase co-ordination of management and monitoring of protected areas, and assess the ecological representation of the protected areas network.

Community-Based Monitoring

Environmental stewardship is enhanced when communities have increased capacity and ability through community-based monitoring programs. In the NWT, funding for community-based monitoring is provided through the NWT Cumulative Impact Monitoring Program (CIMP), the Aboriginal Aquatic Resources and Oceans Management (AAROM) Program, and the Northern Contaminants Program. The GNWT provides in-kind support for planning and implementing community-based monitoring programs by offering help with proposal and report-writing and providing sound scientific advice. Work to formalize support and enhance funding continued in 2010-11.

Environment Assessment and Management (EAM)

Several significant environmental impact assessments, including the Environmental Impact Review of the Mackenzie Gas Project and the Taltson Hydro Expansion will conclude in 2010-11. Several mine projects underwent technical reviews. EAM coordinated the review of a number of policy and guidance documents produced by the Land and Water Boards and the Mackenzie Valley Environmental Impact Review Board. As well, guidance documents related to ENR forest and wildlife habitat are being produced, including a draft seismic guideline. In cooperation with Informatics, the Environmental Assessment Tracking System (EATS) continues to be improved.

Measures Reporting

Measure 1
Number of inter-jurisdictional commitments

From 1997 through 2008-09, four transboundary commitments were put into place: the Mackenzie River Basin Transboundary Waters Master Agreement (1997) that provided for bilateral agreements, the Yukon-NWT Bilateral Agreement (2002), the Interim Prior Notification and Consultation Protocol (2007) and the Alberta-NWT Bilateral Memorandum of Understanding (2008). In 2009, all member jurisdictions (Canada, British Columbia, Alberta, Saskatchewan, Yukon and the NWT) agreed to the Bilateral Water Management Agreements Guidance Document. In 2010-11 work focused on preparations for the Alberta-NWT bilateral agreement.

Measure 2
Number of engagement activities undertaken within regions to promote water stewardship.

During 2009-10 over thirty activities were undertaken to gather input to finalize the NWT Water Stewardship Strategy (WSS). These included presentations and discussions at Aboriginal Government General Assemblies, community visits and workshops on specific matters related to items in the WSS. In 2010-11 work continued to finalize a WSS Action Plan and ensure ongoing participation in WSS implementation.

Measure 3
Number of land use plans successfully negotiated and in place.

To date still only one regional land use plan, the Gwich'in Land Use Plan (2003), has been approved by the regional Aboriginal Government, the GNWT and the Federal Government. In 2009-10 to 2010-11 progress was made on the 5-year review of the Gwich'in Land Use Plan, the Interim Dehcho Land Use Plan, the Sahtu Land Use Plan and a land and resource management plan for a portion of the Upper Thelon region.

Measure 4
Number of NWT PAS sites advance through PAS stepped process.

The PAS can be roughly divided into three main "phases":

1. Identify and sponsor protected areas (PAS Steps 1-3)
2. Assess candidate areas and establish protected areas (PAS Steps 4-7)
3. Monitor and manage established areas (PAS Step 8)

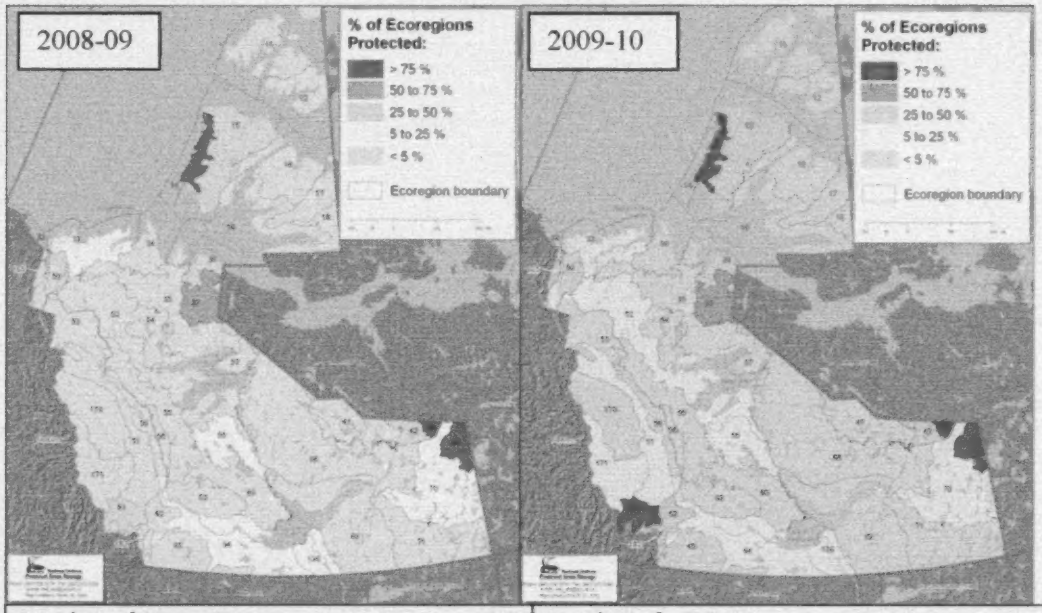
Number of NWT PAS sites advanced through PAS stepped process - Status Report		
Steps in the PAS process	**Number of sites**	
	2008-09	**2009-10**
Steps 1-2	13	10
Step 3	4	2
Step 4	4	1
Steps 5-8	1	5
Established	0	1
Total	22	19

The total number of sites advancing through the NWT PAS process dropped in 2009-10. Nááts'ihch'oh moved to the Parks Canada process and Acasta Gneiss, Dry Bones/Wool Bay and the Slave River Delta sites have been removed as there appeared to be no community interest.

Communities in four regions of the NWT have identified areas for possible protection of special natural and cultural values through the PAS. Three of these areas have been granted interim protection by the federal government through protected area-related land withdrawals and others are partially protected through land claims-based interim withdrawals.

Measure 5

Amount and number of ecoregions within established protected areas.



Number of ecoregions	Number of ecoregions
3	4
1	2
5	5
5	8
28	23

In total there are 42 ecoregions in the NWT that have varying degrees of representation by established protected areas. From fiscal 2008-09, the amount of representation has increased in 5 ecoregions. Ecoregions with less than 5% protection are down from 28 to 23 ecoregions.

Measure 6
Number of regulatory applications, renewals, and environmental assessments coordinated.

EAM coordinated the submission of technical comments and recommendations from ENR divisional and regional staff to resource management boards and agencies on 211 applications. These applications were for water licenses and land use permits throughout the territory, as well as leases on Commissioner's Lands and Federal Crown Lands.

Regulatory Applications			
	2007-08	**2008-09**	**2009-10**
Water Licenses	29	3	39
Land Use Permits (Mackenzie Valley only)	93	56	66
Leases	40	132	51
Other Screenings (Inuvialuit region)	31	39	55

EAM also coordinated GNWT interventions in 23 environmental assessments and environmental impact reviews involving major and minor resource development projects. The GNWT engages in environmental assessments and environmental impact reviews of projects within the NWT as well as those in neighbouring jurisdictions that have the potential to affect the NWT environment.

Environmental Assessments (EAs) and Environmental Impact Reviews (EIRs)			
	2007-08	**2008-09**	**2009-10**
NWT	15	16 EAs – 2EIRs	17 EAs – 2 EIRs
Nunavut	1	2	2
Yukon	0	1	2
British Columbia	1	0	0
Alberta	0	0	0

While the number of applications and assessments is a reflection of the level of activity in the NWT, it is only an indirect measure of the level of effort required to conduct the regulatory reviews and participate in environmental impact assessments as effort will vary substantially based on the nature of the proposed development and the associated potential for environmental or socioeconomic impacts.

KEY ACTIVITY 3: ENVIRONMENT

Description

The Environment Division (Environment) works with other departments, governments, industry, and citizens to maintain a high quality environment for the benefit of current and future generations. The Environmental Protection section works to prevent and reduce the impact of human activities on the natural environment by providing information, advice, and programs in the areas of contaminated sites, hazardous substances, solid and hazardous waste management, waste reduction and recovery, and air quality. The Climate Change Programs section coordinates the GNWT's response to climate change by developing strategies and activities to control and inventory greenhouse gas emissions, identify climate change impacts, increase awareness of climate change, and adapt to a changing climate. Working in partnership with the Arctic Energy Alliance, this section encourages energy conservation and the use of energy efficient technologies and alternative energy sources. The Senior Science Advisor provides expertise, leadership, and vision across the GNWT as a champion for excellence in scholarship and research and is responsible for promoting collaborative research priorities and themes relevant to the GNWT, the North and northerners, engaging research partners in science policy development, encouraging investment in research and research infrastructure, and promoting major research initiatives.

Major Program and Service Initiatives 2011-12

Overall

The Climate Change Adaptation Plan will be finalized and implemented to address critical needs for information and coordination on climate change adaptation. The Plan will assist departments in incorporating climate change considerations into decision-making and to assist non-GNWT interests to adapt to climate change impacts. In 2011-12, plan implementation will include improving regional climate change scenarios, expanding information on permafrost vulnerability in areas of critical infrastructure, and providing support to other GNWT departments, communities, and regional and Aboriginal governments that are addressing adaptation problems.

ENR will finalize an update and revisions to the NWT Greenhouse Gas Strategy in 2011. This second five-year review and revision of the strategy will build upon the successes of the 2007-2011 NWT Greenhouse Gas Strategy and broaden the scope of the Strategy to identify actions and approaches that apply across the NWT.

Energy efficiency and conservation programs, including support for the Arctic Energy Alliance, Energy Efficiency Incentive Program, Energy Conservation Program, Alternative Energy Technology Program, community energy planning, and public education and awareness will continue to be a focus for Environment. These programs will target and promote action that reduce the use of imported fossil fuels, reduce greenhouse gas emissions and reduce the cost of living for NWT residents.

Environment & Natural Resources

Environment will provide leadership in the implementation of alternative energy solutions including community wind energy, biomass energy, and geothermal energy projects. Working with other Divisions, Departments, communities, and energy partners, Environment will facilitate the installation of three wind turbines in Tuktoyaktuk, explore the potential and feasibility of geothermal energy use and facilitate that use where appropriate, facilitate the installation of community biomass and distributed energy systems in a thermal community, promote use of firewood, and establish infrastructure to support expanded wood pellet manufacturing and use within the NWT.

Environment will lead and work closely with other Divisions and Departments to ensure the implementation of the GNWT Science Agenda and thereby help ensure that research activities in the NWT are focused on issues important to the GNWT and NWT residents and will contribute to greater northern participation in research activities and through this an increased interest in education.

Strategic Initiatives

Climate Change Adaptation Plan

Environment will finalize the Climate Change Adaptation Plan in fall 2010. A report identifying the impacts of climate change on GNWT activities, as well as actions the GNWT has undertaken to adapt to these impacts, will help to guide the development of this Plan. The report also identifies a number of critical needs for information and coordination to assist departments in incorporating climate change considerations into decision-making, especially regarding new and existing infrastructure. The Climate Change Adaptation Plan will establish mechanisms to provide information and support in 2011-12 to decision-makers at all levels to incorporate climate change considerations into their activities.

In 2011-12, ENR, in collaboration with Environment Canada and university partners, will complete regional climate change scenarios for the NWT. ENR will also support permafrost mapping that can be used to identify permafrost vulnerabilities arising from future climate warming. Support and information will be provided to affected departments, communities, and Aboriginal governments to adapt to climate change.

Delivery of Greenhouse Gas Strategy

The Greenhouse Gas Strategy provides a coordinated approach to address climate change issues in the NWT. Actions have been developed to address emissions from GNWT, residential, community, and business activities through promotion of energy efficiency and conservation and development of alternative energy sources. ENR is leading a review and update of the Greenhouse Gas Strategy beginning in 2010-11. The revised strategy will be broadened to establish goals, objectives, and actions for all sectors of the NWT and put NWT action in the context of national and global action on reducing greenhouse gas emissions.

In 2011-12, Environment will implement specific aspects of the revised Greenhouse Gas Strategy and will provide advice and support for other departments, agencies, businesses, and residents to implement actions identified in the Greenhouse Gas Strategy. A report on Greenhouse Gas Strategy actions will be prepared annually. ENR will track and report on GNWT greenhouse gas emissions and support will be provided to other parties in the NWT in preparation of their greenhouse gas emission inventories. Annual inventories of total NWT emissions will be prepared for reporting to The Climate Registry.

Biomass Strategy Implementation

The NWT Biomass Energy Strategy was developed by the Environment Division in close cooperation with ENR's Forest Management Division and was tabled in the Legislative Assembly in February 2010. A number of projects have been undertaken in each of the five main priority areas identified in the strategy: community fuel wood, biomass heating, electricity generation, biomass supply, and communications and public education.

Projects undertaken to date as part of the Biomass Strategy include:

- A review of NWT biomass supply,
- A study on the costs of importing pellet fuel in differing volumes to each community and comparing to diesel shipping costs,
- A review of the feasibility of implementing district heating in each community,
- A detailed assessment of forest resources for an area of 2.8 million hectares in the Dehcho region,
- A detailed assessment on firewood availability near Behchoko and Yellowknife,
- A pilot project to develop a community marshalling yard model to control the inflow and output of timber and timber products in Fort Providence,
- Two assessments of the business feasibility of making of wood pellets in the NWT for supplying local markets, and
- A project to improve and relocate the sawmill in Jean Marie River.

ENR is working directly with communities to identify projects, develop project proposals, and initiate projects that address the 12 actions listed in the Biomass Energy Strategy. Depending on community interest and feasibility assessments, these projects could include improving the supply of firewood, developing wood pellet or wood chip production and supply, increased use of biomass in community district heating systems, and combined heat and power generation. ENR will continue to promote and support community biomass initiatives in 2011-12.

Other departments have also been, and will continue to, implement aspects of the Biomass Energy Strategy, including Public Works and Services, which has installed three pellet boilers, is currently installing five pellet boilers, and is assessing six potential installations of pellet boilers. ENR will work with other GNWT departments to expand the use of biomass in GNWT operations.

Wind Energy Development

Wind energy deployment in the Inuvialuit Settlement Region has advanced to the stage of a detailed business plan for installation of three 100 kilowatt wind turbines in Tuktoyaktuk. The Tuktoyaktuk Power Corporation (TPC), a partnership between the Tuktoyaktuk Development Corporation and Dowland Construction Ltd. is the project proponent. The Northwest Territories Power Corporation is negotiating a power purchase agreement with the TPC for wind energy.

Environmental screening has taken place and all permits have been issued to the TPC for the Tuktoyaktuk installation. Geotechnical studies and detailed project design have been completed by the TPC. Federal funding and proponent equity need to be secured to provide total funding required for the project.

Site preparation work for the Tuktoyaktuk installation was completed in 2010-11 and the turbines will be installed and begin operation in summer 2011. The Tuktoyaktuk hub project will provide operational and maintenance experience with wind-diesel systems. ENR will build upon experience with Tuktoyaktuk to develop detailed plans for wind turbine installations in Ulukhaktok, Sachs Harbour, and Paulatuk in future fiscal years.

Support for Geothermal Technology

In order to focus consideration of geothermal energy opportunities in the NWT, ENR contracted an assessment of geothermal energy potential in the NWT and preparation of an NWT Geothermal Favourability Map. The Acho Dene Koe First Nation and a company called Borealis GeoPower are proposing a geothermal power project to provide the full load of power used in Fort Liard. An application for federal funding will be prepared in the fall of 2010 and if successful, detailed project engineering will take place in winter 2010 and project implementation would be in summer 2011.

ENR will be meeting with communities and businesses in the southern NWT to discuss the implications of the NWT Geothermal Favourability Map and next steps forward. A group of businesses in Fort Simpson have expressed interest in development of a geothermal power project in their community. Additional geothermal projects may arise from these discussions.

ENR will also work with the City of Yellowknife in 2011-12 to continue the detailed business planning design stages of the Con Mine downtown district heat system.

Waste Recovery Program

Over the past two years, ENR has introduced several programs to expand the Waste Recovery Program. The Waste Paper Products Initiative provides financial assistance to NWT municipalities, organizations, businesses, and individuals to initiate and develop innovative ways to reuse waste paper and cardboard products destined for landfills. The Single-use Retail Bag Program introduced an environmental levy on single-use retail bags to reduce the use of single-use retail plastic and paper bags. The program currently applies to grocery stores and will be expanded to all retailers in the 2010-11. Milk containers were added to the current legislated deposit-refund Beverage Container Program with a similar fee system. These activities support environmental stewardship by reducing pollutants, greenhouse gases and landfill waste.

In 2010-11, ENR undertook monitoring and promotion of recent program expansions to ensure their longevity. ENR also began research on e-waste recycling options. In 2011-12, ENR will prepare and distribute information and materials on potential e-waste programs and obtain public and retailer input on program options. ENR will design and implement an e-waste recycle program in 2012-13.

MGP Strategic Investment – Permits and Regional Capacity

ENR has developed technical expertise on regulatory and mitigation approaches to addressing air quality, waste management, hazardous materials management, spills planning, and environmental protection planning issues associated with oil and gas exploration and pipeline construction activities. This expertise ensures that ENR can conduct a thorough and detailed review of the oil and gas exploration and pipeline applications, support mitigation and remediation activities, address public concerns over potential environmental impacts from pipeline and natural gas development, and reduce the GNWT's post-devolution environmental liabilities.

Increased Community Presence of the Arctic Energy Alliance

The Arctic Energy Alliance (AEA) established and staffed the Inuvik Regional Energy Pathfinder position. A Regional Energy Pathfinder position is also being established in Norman Wells in 2010-11 to help deliver energy programs in the Sahtu Region and a third Regional Energy Pathfinder Position will be established in Fort Simpson in 2011-12.

AEA has completed an Alternative Energy Mapping Project and information about the potential for use of renewable energy in communities has been provided to communities.

AEA has increased their home energy evaluations target from 180 to 350 and now visits every community in the NWT annually. In 2011-12, the program will provide homeowners across the NWT with information on how best to improve the efficiency of their homes and will also provide assistance with some quick improvements such as installing programmable thermostats and caulking.

Energy Efficiency Incentive Program

Energy Efficiency Incentive Program (EEIP) funding provides rebates for energy saving products and community winterization workshops. In 2009-10, residents from 18 communities received 183 rebates. Demand for the program is expected to increase in 2010-11 and 2011-12 as insulation, windows, doors, and drain water heat recovery units have been added to the list of eligible EEIP products. Four community winterization workshops were held with up to 10 students in each community being trained in basic winterization techniques such as caulking and weather stripping. Five community workshops will be held in 2011-12.

Business Support Program

Beginning in 2011-12, AEA will provide a free energy service for NWT businesses that will help NWT businesses identify and overcome the barriers that are preventing them from implementing energy efficiency and renewable energy projects. Preliminary research shows a huge potential for savings in terms of both financial resources and reductions in greenhouse gas emissions. A standard approach to measuring these savings will be developed to ensure action taken is effective.

Science Agenda Implementation

ENR worked with other GNWT departments to prepare the GNWT Science Agenda. *Building a Path for Northern Science* was tabled in the Legislative Assembly and distributed to a broad range of stakeholders in northern research, including NWT Aboriginal organizations and governments. ENR established a Senior Science Advisor to ensure that the Science Agenda is appropriately implemented, regularly updated, and effectively profiled to support science activities in support of GNWT activities and/or decisions.

In 2011-12, major actions under the Agenda will include developing and publishing best practices and standards for community consultation on science projects, expanding research partnerships, improving information sharing protocols, building GNWT science capacity and evaluating the research licensing and permitting processes across the NWT. ENR and the Interdepartmental Science Working Group will also work with NWT community groups, Aboriginal Governments and organizations, environmental non-government organizations, and federal agencies to develop a comprehensive NWT Science Agenda.

Four Year Business Plan Update

Results to Date

Waste Reduction and Recovery Program

ENR has expanded the waste reduction and recovery program to include programs and/or initiatives targeting milk containers; paper and cardboard; and single-use retail bags. Regulation changes have been implemented that include adding milk containers to the Beverage Container Program. A Waste Paper Products Initiative was implemented to provide financial assistance to NWT municipalities, organizations, businesses, and individuals to initiate and develop innovative ways to reuse waste paper and cardboard products. New legislation and regulation were implemented to establish an environmental levy on single-use retail bags.

Climate Change

ENR is working with GNWT departments to finalize an NWT Climate Change Adaptation Plan. The Plan establishes mechanisms to provide information and support to decision-makers at all levels to incorporate climate change considerations into their activities.

ENR represented GNWT interests on the federal/provincial/territorial Working Group on International Climate Change and ensured that northern interests were fully considered in the development of Canada's position and approach to the United Nations Framework Convention on Climate Change Conference of Parties meeting in Copenhagen (COP15) and for the follow-up meeting in Mexico in 2010 (COP16).

ENR has taken and promoted actions under the Greenhouse Gas Strategy to reduce greenhouse gas emissions, track emissions and energy performance, and to investigate and support alternative energy technologies. ENR has started a review and update of the Greenhouse Gas Strategy and a revised document will be finalized in 2011.

ENR has inventoried GNWT greenhouse gas emissions, supported other parties in the NWT in preparation of their greenhouse gas emission inventories, and prepared annual inventories of total NWT emissions for reporting to The Climate Registry.

Alternative Energy

The feasibility of wind electrical generation has been evaluated in several NWT communities. Business planning, project design, and permitting were undertaken for the Tuktoyaktuk wind energy project and three wind turbines will be installed and operational in Tuktoyaktuk by the summer of 2011.

A Biomass Energy Strategy has been completed and is being implemented. The Strategy addresses five main areas: community fuel wood, biomass heating, electricity generation, biomass supply, and communication and public education. The Strategy will establish conditions to enable biomass energy to become an integral part of the energy mix in the NWT.

ENR has established programs and provided funding and technical support to projects demonstrating the use of alternative energy technologies (e.g. solar hot water heating, photovoltaic panels, wood pellet heating) and to develop GNWT and community knowledge and capacity.

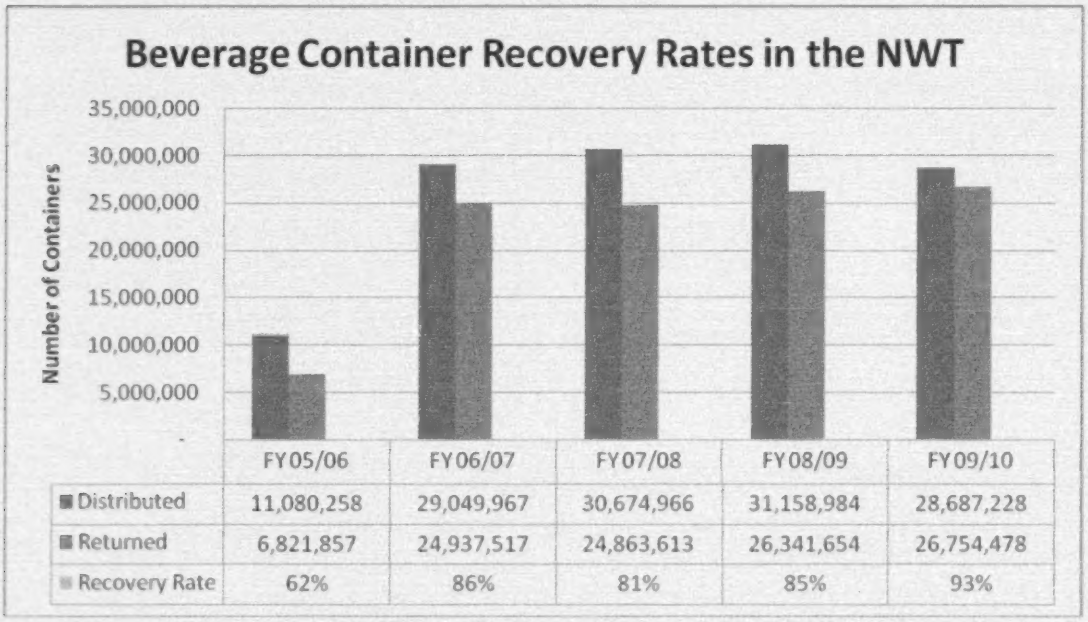
Environmental Assessment and Monitoring Unit Moved

The Environmental Assessment and Monitoring Unit was moved to the new Land and Water Division.

Measures Reporting

Measure 1
Annual Recovery Rate of Beverage Containers

The Beverage Container Program was implemented in November 2005. From April 1, 2009 to March 31, 2010, almost 29 million containers were distributed and over 26 million containers were returned to NWT depots. The rate of recovery for the fiscal year 2009-10 was 93%. Total returns, from program implementation to March 31, 2010 were almost 110 million containers.



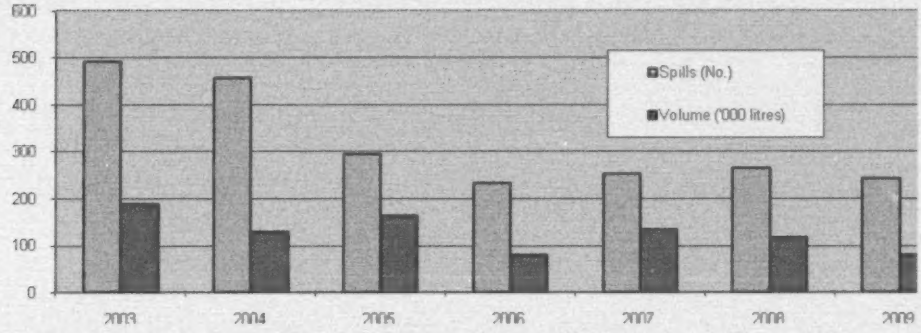
	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10
Distributed	11,080,258	29,049,967	30,674,966	31,158,984	28,687,228
Returned	6,821,857	24,937,517	24,863,613	26,341,654	26,754,478
Recovery Rate	62%	86%	81%	85%	93%

Note: the number of containers distributed in this fiscal year was lower than the past three years although the number of containers returned per annum has remained relatively constant. ENR is verifying sales figures for this period.

Measure 2
Number and volume of hydrocarbon spills recorded and tracked through the NWT Spill Line.

Petroleum liquids represented the majority of spills in the NWT. There has been a general decrease in the number and volume of spills since 2003. New reporting protocols implemented for the oil and gas exploration and development sector in 2004 and 2005 are reducing the number of small spills (less than 100 litres) being reported.

Number and Volume of Hydrocarbon Spills
Northwest Territories, 2003 – 09

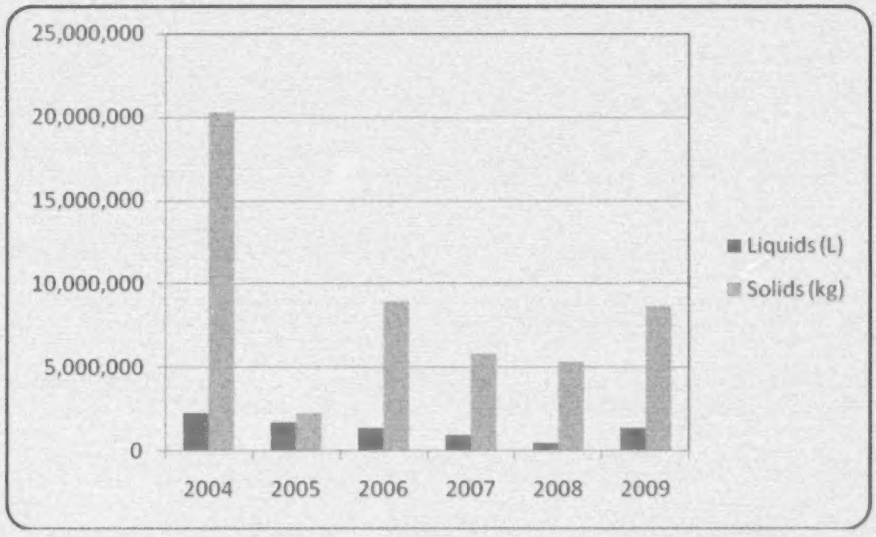


Source: NWT Spill Line database

Measure 3
Quantity of hazardous wastes generated and transported off site.

The information described in the tables below accounts for the amount of hazardous waste being consigned from registered generators of hazardous waste to registered receivers of hazardous waste. The receivers may be within the NWT as is the case for facilities that remediate hydrocarbon contaminated soils and waters. The large amount of solids consigned in 2004 is due to contaminated soils being generated by one company (Enbridge Pipelines). The annual amounts are consistent with the fiscal year April 1 to March 31. The weights and volumes are estimates based on amounts reported in cubic meters but may be considered accurate for general trends.

Hazardous Waste Consignments in the NWT			
Year	Liquids (L)	Solids (kg)	Consignments recorded by ENR
2004	2,317,654	20,282,366	617
2005	1,738,964	2,264,574	534
2006	1,375,632	8,947,990	649
2007	956,791	5,821,448	565
2008	478,110	5,324,799	778
2009	1,387,096	8,666,299	881



Source: ENR Hazardous Waste Transportation Tracking System

Measure 4
Level of participation in energy conservation and alternative technology programs

	2007-08	2008-09	2009-10
Alternative Energy Technology Program			
Projects funded	14	14	9
Funding provided	$121,436	$95,161	$53,852
Estimated annual CO_2 reduction (tonnes)	65	129	23
Estimated annual savings	$23,849	$58,531	$11,107
Energy Conservation Program			
Projects funded	3	9	8
Funding provided	$69,800	$124,662	$110,279
Estimated annual CO_2 reduction (tonnes)	89	130	250
Estimated annual savings	$31,760	$66,739	$52,925
Energy Efficiency Incentive Program			
Rebates provided	547	764	813
Funding provided	$165,550	$ 262,150	$264,401
Estimated annual CO_2 reduction (tonnes)	938	1,869	1,840
Estimated annual savings	$228,223	$551,191	$676,681
Workshops/Training Sessions			
Number of workshops	4	5	4
Funding provided	$30,000	$79,100[a]	$142,192[b]

[a] Includes $15,000 contributed for renewable energy seminars held in Beaufort region communities.
[b] Includes purchase of material from local stores for students to winterize up to 10 homes in each community.

KEY ACTIVITY 4: FOREST MANAGEMENT

Description

The Forest Management Division (FMD) provides for the stewardship of NWT forests through sustainable management of forest resources and forest fire management.

Sustainable forest management is ensured through the collection of information on the state of forest resources, forest management planning, monitoring of forest health and changes to forest landscapes, regulation of forest practices and planning, and compliance and reporting. Forest fire management is achieved through prevention, preparedness, and forest fire response. Using the best science, technology, and effective use of available fire response resources, forest fire management provides for the protection of people, property, and other values at risk from forest fire. Developing an increased capacity of individuals, communities, industry, and others to take responsibility for reducing fire hazards and forest fires is also a priority.

Major Program and Service Initiatives 2011-12

Overall

The Wildland Fire Management Program Review (reviewing the implementation of NWT Forest Management Policy 53.04 and Fire Response Strategies) completed in the fall of 2010, will be followed with development of a plan for implementation of key changes and management concepts recognized through the Review process. Changes are expected to be in effect for the 2011 forest fire season.

As part of the Forest Fire Management Program Review, communication processes with communities and stakeholders were addressed to resolve concerns about engagement concerning past, present, and future wildland fires, values-at-risk, and to provide for a more encompassing platform for decision-making. Recommendations will be implemented in the 2011–12 forest fire season.

A key component of the Wildland Fire Decision process is the location and importance of values-at-risk on the landscape. Values-at-Risk, their location and description are a key component in the decision processes required for NWT Forest Fire Management Policy implementation. The update to the values-at-risk database of property values on the landscape will be substantially completed by the end of fiscal year 2010–11. Commencing in winter 2010-11 and continuing on into 2011-12, ENR will implement collection and recording of landscape features and values affected by wildland fire, a matter of significant concern in determination of effects of wildland fire on important landscape values such as wildlife resources.

Forest resource assessments are complete for a large area in the Dehcho region along the Mackenzie River (2.8 million hectares). The technical information provides guidance on sustainable harvest levels for the area. ENR will present the information to communities inviting discussions on how this information can fit into community resource planning, and how the forest management program may assist the community in accessing the economic potential of the community's forest resource base.

Forest renewal strategy goals are to guide forest renewal activities and provide linkages to emerging forestry issues, including sustainability, ecological classification, climate change, carbon budgets, wildlife habitats, and others.

Implementation of new software products (EMBER, Spatial Precipitation and Risk Calculation System (SPARCS), and the Forest Management Information System) will be continued to further integrate financial tracking, operational decision-making capacity, and to support environmental monitoring.

The Forest management policy and legislation initiative is continuing. This includes development of a legislative framework and policy required to enable ENR to effectively manage forest sustainability, forest impact control, forest ecology, biodiversity, and climate change. A work plan outlining the key steps and procedures in the development of forest management policy and legislation will be completed.

ENR will initiate work on climate change adaptation planning, identifying ecosystem impacts, and developing indicators of climate change on forest resources as part of the territorial amalgamation of climate change issues.

ENR will advance the monitoring and reporting of insect pest activity in northern forests, especially focusing on potential landscape level infestations such as the mountain pine beetle (now being observed in northern Alberta).

ENR will complete a strategic audit of its operational radio and information gathering networks across the NWT, providing a sound basis for expenditure planning for future years, and ensuring that the network continues to provide the best strategic fit for ENR's wildland fire and field operations programs.

ENR will be pursuing long-term leasehold arrangements for the supply of warehouse, workshop, specialty, and office space for FMD in Fort Smith.

Strategic Initiatives

Biomass Strategy Implementation

The potential for communities and northerners to use forest biomass as a green energy source will continue to be a key focus area. Forest Management and Environment Divisions have worked together and with others to assess biomass energy potential in various communities. Community needs will be evaluated and forest resources surrounding the communities will be assessed for suitability and accessibility. Priorities will be established for the collection of new inventory information.

ENR will continue to work with communities to identify sustainable forest and biomass industry opportunities and provide information and support where possible. Efforts are focused on completing development of woodlot options in the Yellowknife and Behchoko areas, and a riparian willow fields management plan in the Fort McPherson area.

ENR will develop best practice sustainable management plan formats, guidelines, and procedures for implementation of significant biomass harvesting operations. This will ensure that the harvest of forest resources for alternative energy does not have a negative impact on the ecological integrity and long-term sustainability of the northern forest resource base.

Risk Management Strategies – Community Protection Plans

The Strategic Initiative for completion of Community Wildland Fire Protection Plans will continue. In 2011-12, Community Wildland Fire Protection Plans will be developed for the communities of Fort McPherson, Behchoko, Yellowknife, Whati, Nahanni Butte, Colville Lake, and Deline.

ENR will continue to pursue financing alternatives for communities to implement the strategic directions contained in the Community Wildland Fire Protection Plans.

ENR will develop Wildland Fire Response Pre-attack Plans for community landscape areas, recognizing that effective planning and preparation will enable effective response to wildland fire emergencies in community areas.

Four Year Business Plan Update

Results to Date

ENR continues to work with the Canadian Forest Service, and others, to develop a series of products that deliver carbon accounting products for our forested landscape. The objective is to improve estimates of the forest landscape, how it is changing, and specifically carbon flux of NWT forests.

ENR, having technical information in hand, has met with communities on the implementation of an assessment, engagement, and reporting plan for the continuous inventory areas from Kakisa through Fort Providence, Jean Marie River, Fort Simpson, and Wrigley. The meetings saw community information and input on joint products that reflect the needs and concerns of the communities.

New forest vegetation inventory products are available as baseline knowledge. A new inventory investigating pine stands susceptible to mountain pine beetles was completed for the southern portion of the NWT. A new enhanced Landsat classification that provides additional attributes of height, density and carbon accumulations has been completed for 2.3 million hectares in the southern part of the NWT. Information has been collected on permanent forest monitoring plots.

ENR continues to provide specialty product information to the Protected Areas Strategy on forest resources technical information and modeling.

Alternative Energy

Consistent with work undertaken by ENR's Environment Division, FMD is actively engaged in exploring the potential for communities and northerners to use forest biomass as a green energy source is a key focus area. FMD, in conjunction with the Environment Division, has completed feasibility analyses for the development of wood pellet manufacturing facilities serving the northern economy, based in the north, and accessing northern forest resources.

ENR is assessing forest resources in community areas for suitability and accessibility for woody biomass development. Key areas of work include forest inventory and reporting appropriate forest biomass opportunities to potential users. Forest resource assessments for ten communities were completed in 2010-11.

FMD works cooperatively with the Environment Division in implementing the NWT Biomass Strategy. Assessments and evaluations to ensure sound and valuable knowledge are obtained and shared with all northern parties is the objective. The template for doing Community Forest Resource Assessments has been enhanced to include the forest as a fiber source (i.e. to support biomass energy projects).

Sustainable Forest Management

ENR developed an operational audit protocol for assessing the sustainability of forest operations based on timber supply scenarios. During 2010-11, all timber use applications were reviewed in the context of maintaining sustainable fiber supplies. New areas where these assessments can be effectively done continue to expand as evaluations of the forest increase.

The Dehcho Forest Resource Assessment project produced technical information around sustainable forest uses. Community engagement is a key element in ensuring technical information is useful at the community level. This work creates a process as an example that other regional projects can draw upon. ENR completed community engagement on sustainable forest uses during 2010-11.

ENR has been working on projects that move communities and businesses forward in their sustainable use of the forest resources. These include the forest as a renewable energy source of biomass and structural building materials.

ENR, through the forest management program, entered into research agreements with southern universities to provide scientific support on issues related to caribou and wildland fire. Under Natural Sciences and Engineering Research Council (NSERC) grants, ENR supports research through the University of Northern British Columbia's and the Université de Laval's Caribou and Fire Regimes, climate change and territorial lichen effects, socioeconomic issues on wildland fire and caribou, and spatial modeling decision supports for best practices in wildland fire and caribou decision analyses.

Managing Forest Resources

In cooperation with the Gwich'in Tribal Council and Gwich'in Renewable Resources Board, ENR completed the *Gwich'in Forest Management Plan: A Framework for Forest Management*. The plan identifies concerns and outlines solutions to guide forest-related activities while minimizing conflicts among various interests. It is a framework for management and protection of forests in the Gwich'in Settlement Area. The formalization of the plan will be completed once the Gwich'in Tribal Council advises of their support.

The areas of non-timber forest products and forestry education and extension activities remain an important program area despite lost capacity. Plans are in place to develop long-term programming in cooperation through contractors, other service divisions, and through greater use of regional resources.

Field monitoring of forest insect pests has been advanced in the NWT. Field methodologies and reporting protocols have been implemented in all regions, focusing on pests of significant interest to northern forest managers (e.g. spruce budworm, mountain pine beetle).

Forest Management Legislation and Program Review

A scoping study on forest management legislation and policy was completed in May 2010. The study advises on common threads and focus of forest management legislation and policy in Canada, reflecting on similar environments as found in the NWT, both environmental and social.

ENR, with the assistance of the Department of Justice, has revised the *Forest Management Regulations* to address the incidental impact on forest resources from development activities. ENR anticipates having regulatory changes in place in advance of the start of the Mackenzie Gas Project. Discussions are beginning with Canada on the implementation of the legislative change, recognizing the overlapping jurisdiction.

A Forest Fire Management Program Review was initiated during the summer of 2009, with key principles and concepts arising from the review implemented for the 2010 forest fire season. The Program Review has been continued with community workshops with First Nations governments, and technical reviews and consultation. A report on the results and recommendations for future action was delivered in October 2010.

Risk Management Strategies

Working collaboratively with Municipal and Community Affairs and northern communities, ENR is championing a revised Community Wildland Fire Protection Planning methodology based upon FireSmart principles. By the end of fiscal year 2009-10, plans were completed for the communities of Enterprise, Fort Smith, Kakisa, Fort Providence, Jean Marie River, Norman Wells, Fort Good Hope, and Tsiigehtchic. By the end of 2010-11, plans were completed for Hay River, the Hay River Reserve, Fort Resolution, Fort Simpson, Trout Lake, Wrigley, Fort Liard, Lutselk'e, and Tulita.

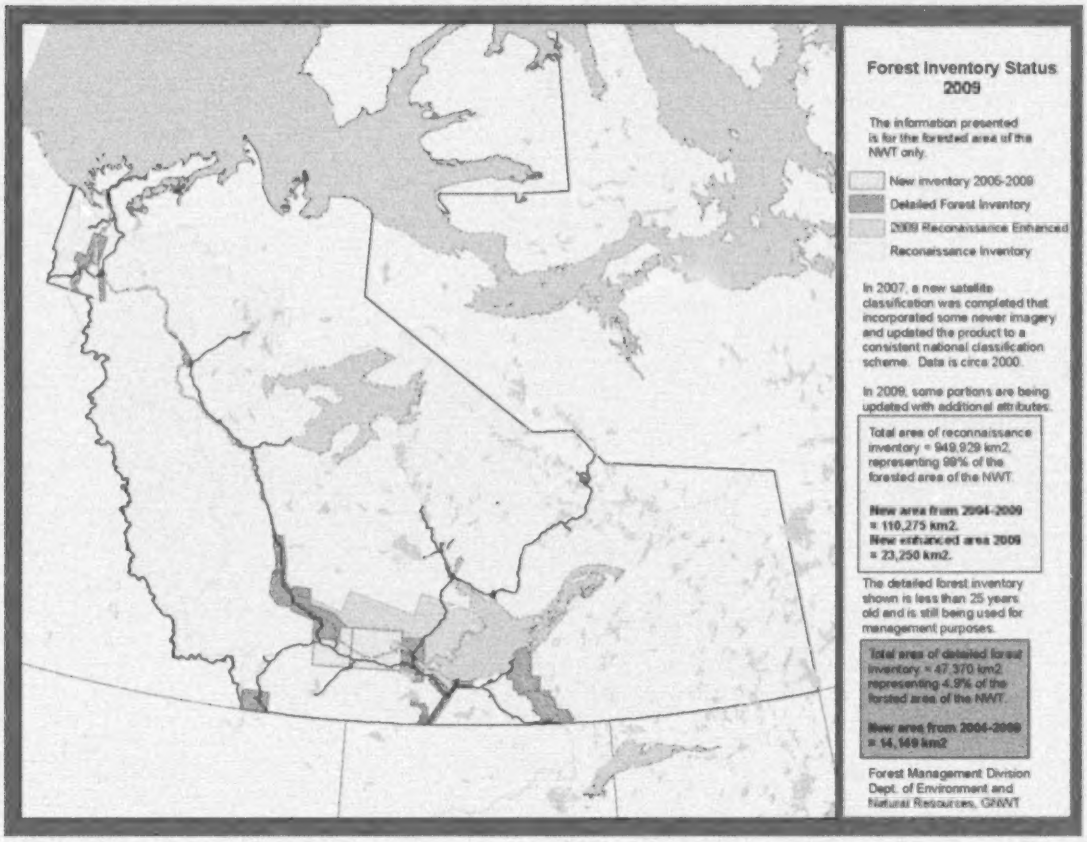
With federal funding support under the Community Adjustment Fund initiative, fuel hazard reduction and management work was undertaken in 13 NWT communities in the winter of 2009-10 including Wrigley, Fort Simpson, Fort Liard, Trout Lake, Jean Marie River, Nahanni Butte, Whati, Gameti, Dettah, Fort Resolution, Fort Providence, Kakisa, and Fort Smith.

ENR continues to work with FPInnovations – FERIC Wildland Fire Operations Research Group at the Community Boreal Forest Research site near Fort Providence. The cooperative research addresses practical validation of FireSmart principles, wildland fire technologies, structural protection, and wildland fire personnel safety.

Measures Reporting

Measure 1
Area of the NWT having data on the current state of the forest resource

There are 33 million hectares of forested land in the NWT. Twenty-one percent (21%) of this land has been inventoried, 4.7 million hectares of the forest has detailed level forest inventory and an additional 2.3 million hectares has been analyzed through enhanced Landsat classification. These numbers are unchanged from last year, as no new inventories have been initiated. In 2010-11, a complete review and update was done of forest inventory procedures and specifications in preparation for new inventory.


Forest Inventory Status 2009
The information presented is for the forested area of the NWT only.
New inventory 2005-2009
Detailed Forest Inventory
2009 Reconnaissance Enhanced
Reconnaissance Inventory
In 2007, a new satellite classification was completed that incorporated some newer imagery and updated the product to a consistent national classification scheme. Data is circa 2000.
In 2009, some portions are being updated with additional attributes.
Total area of reconnaissance inventory = 949,929 km2, representing 99% of the forested area of the NWT.
New area from 2004-2009 = 110,275 km2.
New enhanced area 2009 = 23,250 km2.
The detailed forest inventory shown is less than 25 years old and is still being used for management purposes.
Total area of detailed forest inventory = 47,370 km2, representing 4.9% of the forsted area of the NWT.
New area from 2004-2009 = 14,169 km2
Forest Management Division Dept. of Environment and Natural Resources, GNWT

Measure 2
Number of community Wildland Fire Risk Mitigation plans completed

By the end of fiscal year 2009–10, eight Wildland Fire Community Protection plans were drafted for the communities of Fort Smith, Kakisa, Tsiigehtchic, Fort Providence, Norman Wells, Enterprise, Jean Marie River, and Fort Good Hope.

In 2010–11, a further nine Wildland Fire Community Protection Plans were completed for the communities of Hay River, the Hay River Reserve, Fort Resolution, Fort Simpson, Trout Lake, Wrigley, Fort Liard, Lutselk'e, and Tulita.

Measure 3
Sustaining fire dependent ecosystems while maintaining a social, economic and environment balance of fires on the landscape.

Wildland fire is an important agent of change on the boreal landscape. Determining how many natural-caused wildland fires (lightning-caused or geologically-caused) should be actioned versus how many wildland fires should be monitored all relate to the number of dynamic factors, such as time of year, proximity to values-at-risk, available resources, and other risk variables (all person-caused wildland fires are actioned because of their proximity to values-at-risk). A decision to monitor a natural-caused fire is just as important as a decision to action one. ENR has reduced the average number wildland fires actioned from approximately 70% in the past to 50% over the past decade.

The summer of 2009 was one of the coldest, wettest forest fire seasons, with the lowest number of wildland fires reported on record. The average annual number of wildland fires located in the past ten years is 212, with 248,590 hectares affected annually. There were a total of 42 wildland fires found and a total of 2,057 hectares affected in 2009. Twenty-seven of these wildland fires were natural-caused and 15 were person- or industry-caused. All 15 person-caused wildland fires were actioned and suppressed. Of the 27 natural-caused wildland fires, 13 were suppressed and 14 were monitored, of which five received some limited action to protect values-at-risk.

KEY ACTIVITY 5: WILDLIFE

Description

Wildlife initiatives assess and monitor wildlife, habitat, species at risk, wildlife health, and biodiversity, as well as coordinate initiatives to address impacts on wildlife from human activity. Functions include developing plans and programs to support the conservation of wildlife resources, preparing public information materials on wildlife management and safety, and administering the sport fishery.

Wildlife programs and services are delivered by regional and headquarters wildlife staff. Regional wildlife staff work closely with wildlife co-management boards to co-ordinate wildlife research and monitoring programs. Regional wildlife staff undertake wildlife surveys and involve communities in these activities. Regional staff also participate in the development of management plans. Headquarters wildlife staff help co-ordinate and provide expertise to assist regional staff in wildlife research and monitoring programs. Headquarters wildlife staff liaise with national and international wildlife activities and co-ordinate NWT-wide programs, such as biodiversity monitoring, major legislative reviews (e.g. *Wildlife Act*), species at risk programs, wildlife health studies, wildlife best management practices, wildlife cumulative effects studies, wildlife databases, and wildlife study publications. All wildlife and sport fishing compliance programs are delivered by regional renewable resource officers.

Major Program and Service Initiatives 2011-12

Overall

The major wildlife programs and services to be delivered by regional and headquarters wildlife staff in 2011-12 focus on four areas: providing services to the public, collecting information for management, providing information on wildlife to the public, and taking actions to conserve wildlife and habitat and compliance actions.

Services to the public include issuing various wildlife permits and licenses, responding to information requests for data, and addressing problem wildlife. Information collection for management in 2011-12 includes maintaining data management systems (NWT Species Infobase and Wildlife Management Information System), conducting regional surveys to monitor the status and trend of muskox, moose, snowshoe hare, small mammals, furbearers and other wildlife, releasing reports on important wildlife areas, and running the Daring Lake Tundra Ecosystem Research Station.

As well, in 2011-12, the update of the ecosystem classification for the NWT will be completed, which describes the landforms, soils, and vegetation in various regions of the NWT. Wildlife health information is also important for management in 2011-12, and monitoring will continue with respect to wildlife health issues that affect humans and wildlife, such as rabies, tularemia, bovine tuberculosis and brucellosis, West Nile virus, and avian influenza.

Providing information to the public includes releasing annual guides on sport fishing and hunting regulations and doing presentation on wildlife to schools and the public.

Taking actions to conserve wildlife will include developing draft guidance documents to reduce wildlife impacts from mining activities. Compliance actions for 2011-12 including undertaking patrols to monitor hunting, outfitting, and sport fishing activities, and running regional winter road check stations to monitor harvest.

Strategic Initiatives

Stewardship – Managing Key Resources

Stewardship actions are needed to monitor the effect of recovery actions on barren-ground caribou herds, manage species at risk (wood bison, woodland caribou, polar bear), and manage the effects of habitat change caused by natural disturbance and climate change, as well as human activities that threaten woodland boreal caribou and barren-ground caribou winter range.

Significant achievements to date include the updating of barren-ground caribou herd estimates in 2009 and 2010. The Alberta Research Council completed a peer review of NWT caribou studies and ENR tabled a management response in the Legislative Assembly in June 2009 and has been implementing recommendations. The draft Wood Bison Management Strategy was released for consultation in 2009 and finalized in 2010. The NWT Action Plan for woodland caribou, a species at risk, was finalized in 2009 and is being implemented. The first NWT State of Environment report was released in June 2009 and for the most part, showed that the NWT has clean air and water, and productive forests, land, and wildlife.

The main activities for 2011-12 are implementing monitoring actions in the new Five-Year NWT Barren-Ground Caribou Management Strategy (2011-2015), including undertaking surveys to monitor calf survival, annual movements, and fall sex ratio, estimating Ahiak herd size, and updating herd estimates. A complete study to assess cumulative effects on barren-ground caribou will also be completed. As well, stewardship actions are needed to address key species at risk, including completion of wood bison management plans for the three bison populations (Mackenzie, Nahanni, and Slave River Lowlands), the implementation of the NWT Action Plan for boreal woodland caribou, continuation of a traditional knowledge study on polar bears, preparation of a five-year polar bear monitoring plan in cooperation with the Inuvialuit and Environment Canada, and continuation of the three-year process to update the population estimate for the Viscount Melville polar bear sub-population. While caribou numbers are low, it is also critical to monitor the status of key wildlife species such as moose and muskox.

NWT Barren-ground Caribou Management Strategy (2011-2015)

Significant achievements to date include implementing all recommendations from the Gwich'in and Sahtu wildlife co-management boards regarding recovery actions for Cape Bathurst and Bluenose-West herds and implementing the NWT Barren-ground Caribou Management Strategy (2006-2010). Interim emergency measures to protect the Bathurst herd were implemented in January 2010. The Harvest Management Strategy for the Porcupine caribou herd was approved by all signatories to the Porcupine Caribou Management Agreement. A revised joint management proposal was completed with Tlicho Government and was submitted to the Wek'eezhii Renewable Resources Board for caribou management actions in Wek'eezhii.

Key activities planned for 2011-12 are to implement the management actions in the new Five-Year NWT Barren-ground Caribou Management Strategy (2011-2015). These actions include: developing a management plan for the Bathurst caribou herd and a harvest management plan for the Ahiak herd with co-management partners, enhancing patrols, supporting traditional knowledge studies to provide information for decision-making, supporting technical capacity-building with Aboriginal governments, increasing conservation education activities, collecting harvest data, implementing management plans for Cape Bathurst, Bluenose-West, and Bluenose-East caribou and a harvest management plan for the Porcupine Caribou Herd, and completing inter-jurisdictional agreements with Yukon and Nunavut on caribou monitoring and management actions.

Expected outputs include the new NWT Barren-ground Caribou Management Strategy (2011-2015) and a new management plan for the Cape Bathurst, Bluenose-West, and Bluenose-East caribou herds.

Species at Risk (NWT) Act

The *Species at Risk (NWT) Act* establishes a process to determine which NWT species are at risk, how the species at risk and its habitat should be protected and conserved, and how to help each species recover. It will apply to all native wild species (e.g. plants, insects, reptiles, raptors, upland game birds, and animals) in the NWT.

A significant achievement was the completion of the new *Species at Risk (NWT) Act*, which was passed by the Legislative Assembly in June 2009 and came into effect in February 2010. Staff for the new Species at Risk Secretariat were hired to co-ordinate processes under Act. The members of the new Species at Risk Committee to assess the status of species at risk in the NWT were appointed and a first meeting was held in March 2010. Status reports will be prepared on four species – Peary caribou, the Hairy Rockcress, polar bear, and woodland boreal caribou.

The key activities for 2011-12 are to hold an annual meeting of the Species at Risk Committee to review status reports on four species, provide listing recommendation to Conference of Management Authorities (CMA), to hold an annual meeting of the CMA, to review listing recommendations from the Species at Risk Committee, develop guidelines on templates for management plans and recovery strategies, and co-ordinate actions on species at risk.

Wildlife Act

The *Wildlife Act* will reform wildlife management law by enacting legislation that is comprehensive, enforceable, and respectful of Aboriginal and treaty harvesting rights.

Significant achievements to date are release of a public document in November 2009 to outline the approach and process to develop the Act, and a public document in July 2010 that outlines main elements of the new Act for public consultation. Expected output is a new Wildlife Act in 2011.

The activities for 2011-12 are to begin the process for comprehensive review of all regulations with the working group, undertake a public awareness program, train officers on new legislation, develop new forms and permits, establish a hunter education program for those applying for resident hunting licenses for the first time, and support harvest studies with wildlife co-management boards, including developing a reporting system.

Four Year Business Plan Update

Results to Date

Best Management Practices, Standards and Guidelines

The environmental guidance document to reduce environmental impacts from seismic exploration activities was completed. This document was prepared collaboratively with Environment Canada, INAC, and Fisheries and Oceans Canada to assist industry and regulators in preparing and reviewing applications, and to promote the use of innovative practices and equipment to protect the NWT environment and wildlife.

Wildlife Management Strategies, Plans and Agreements

The NWT Bison Management Strategy and NWT Action Plan for Woodland Caribou were revised based on consultation and released. The Slave River Lowlands bison population survey was completed. ENR supported a Sahtu Renewable Resources Board traditional knowledge study on caribou. One objective of this three-year study was to identify traditional Dene and Métis best practices for barren-ground caribou stewardship.

The new Five-Year NWT Barren-ground Caribou Management Strategy (2011-2015) was released for review by wildlife co-management boards and finalized. The new strategy contains a report on actions completed under the previous five year management strategy, including calving ground delineation surveys for seven herds, spring calf recruitment surveys, fall adult sex ratio surveys for four herds, winter distribution surveys for four herds, herd estimate updates, harvest data collected, and management planning actions. A peer review of NWT caribou studies was completed by the Alberta Research Council in 2009 and recommendations have been implemented. A technical report on the status of the Bathurst caribou herd was completed as part of the joint caribou management proposal by ENR and the Tlicho Government, and was submitted to the Wek'eezhii Renewable Resources Board.

An NWT/Nunavut intergovernmental polar bear management plan and an NWT/Alberta Memorandum of Agreement to co-ordinate research and monitoring of shared woodland caribou were completed.

Species at Risk (NWT) Act and Wildlife Act

The *Species at Risk (NWT) Act* was introduced into the Legislative Assembly in winter 2009 and passed in June 2009. Processes under the Act have been implemented.

Draft legislation for a new Wildlife Act was undertaken in the fall of 2010 and ENR is anticipating introducing the new Act to the Legislative Assembly in winter 2010.

Classifying and Mapping Ecosystems

Actions to update the NWT ecosystem classification framework continue. To date, the technical reports for the Taiga Plains, Taiga Shield, and Boreal Cordillera have been released. The Southern Arctic technical report will be completed in 2011. The first half of field work for the High Arctic area was completed in 2010 and the remaining is planned for 2011, with the final technical report to be released in 2012. This will complete the update.

Protected Areas Secretariat Moved

The Protected Areas Secretariat was moved to the Land and Water Division.

Measures Reporting

Measure 1
Reports on wildlife studies

The following reports were completed in 2009-10:

- Sport Fishing Regulations Guide
- Hunting Regulations Summary
- Species at Risk Booklet
- State of Environment – Highlight Report
- Draft Wood Bison Management Strategy
- Invaders of the NWT Pamphlet
- Ecological Regions of the NWT Taiga Plains Ecosystem Classification Report
- 2008-09 Annual Western NWT Biophysical Report
- Twenty-two (22) ENR file and manuscript reports

Measure 2
Number of wildlife surveys completed

The following table describes the wildlife surveys completed by regional and headquarters staff in 2009-10.

Species	Survey Description	Location	Number of Surveys Completed
Barren-ground Caribou	Determine calf survival for Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst and Ahiak herd (April 2009)	Inuvik Region, Sahtu Region, North Slave Region and South Slave Region	5
	Conduct calving ground survey of Bathurst herd to update population estimate (June 2009)	North Slave Region and Nunavut	1
	Conduct post calving photographic survey of Cape Bathurst and Bluenose-West herds to update population estimate (July 2009)	Inuvik Region	2
	Conduct post calving photographic survey of Bluenose-East herd to update population estimate (July 2009) – not completed due to weather	Sahtu Region and Nunavut	1
	Assess summer insect abundance and effect on caribou behavior (July and August 2009)	Tundra north of Yellowknife, North Slave Region	2
	Determine adult sex ratios of Bluenose-East and Ahiak herds(October 2009)	Sahtu Region, North Slave Region and South Slave Region and Nunavut	2

	Conduct winter distribution survey – Bathurst, Bluenose East, Beverly-Ahiak (March 2010)	Inuvik Region, Sahtu Region, North Slave Region	3
Dall's Sheep	Monitor Dall's Sheep productivity and recruitment	Mackenzie Mountains, Sahtu Region	1
Ecological Classification	Conduct survey to ground truth soils, landform and vegetation for new ecoregions of Southern Arctic ecozone	Inuvik Region, Sahtu Region, North Slave Region	1
Furbearers	Conduct winter track count and monitor trapping success to monitor marten and mink abundance	Bliss Lake, North Slave Region	1
Moose	Determine number and productivity of moose (November 2010)	Buffalo Lake, South Slave Region	1
	Monitor density/number and productivity of moose (November 2010)	Portions of Mackenzie and Liard River Valley, Dehcho Region	1
Muskox	Determine number and productivity of muskox and assess trend in relation to previous surveys (March 2010)	East of Lutselk'e, North Slave Region	1
	Estimate calf productivity (May 2009)	Sahtu Region	1
Small mammals (e.g., mice, voles, and lemmings)	Conduct live and snap trapping to monitor trend in populations throughout NWT (August 2009)	Inuvik Region, Sahtu Region, Dehcho Region, North Slave Region, South Slave Region	14
Snowshoe Hare	Monitor trend in populations throughout NWT by conducting pellet counts (June-July 2009)	Inuvik Region, Sahtu Region, Dehcho Region, North Slave Region, South Slave Region	14
Wolf	Monitor productivity at den sites to assess population trend (May and August 2009)	Tundra north of Yellowknife, North Slave Region	2
Wolverine	Monitor density of wolverine at Daring Lake, North Slave Region (April 2009)	Tundra north of Yellowknife, North Slave Region	2
Wood Bison	Monitor productivity of wood bison in Nahanni, Mackenzie and Slave River Lowlands populations (July 2009)	Dehcho Region, South Slave Region	3
	Monitor presence of anthrax in Mackenzie and Slave River Lowlands populations (June-August 2009)	South Slave Region	7

Woodland Caribou	Monitor survival and productivity of woodland caribou in Bistcho Lake, Cameron Hills, Saamba k'e, Mackenzie Valley, Dehcho, and Inuvik Region (varies by region: March, April, May April, June, October 2009)	South Slave Region, Dehcho Region, Sahtu Region, Inuvik Region	16
Peregrine Falcons	North American Peregrine Falcon Survey (once every 5 years; next survey in 2010/11)	North Slave	0
Northern Leopard Frogs, Chorus Frog, Canadian Toad, Wood Frog	Studies on densities and prevalence of diseases in amphibian populations on and near the Taltson River.	South Slave	1

Measure 3
Number of samples analyzed for disease

The following table describes wildlife health studies conducted in from 2008 to 2010:

	Positives (samples tested) 2008-09	**Positives (samples tested) 2009-10**
Wildlife & Zoonotic Diseases		
Anthrax Cases (Wood bison)	0 (7 surveillance flights)	0 (7 surveillance flights)
Anthrax Serology (past exposure – Wood bison)	n/a	Pending (379)
Avian Influenza & West Nile (Birds)	0 (38 birds)	0 (50 birds)
Brucellosis & Tuberculosis in Wood Bison (some tests pending)	0 (60)	0 (399)
	n/a	Pending (300)
Caribou Health & Condition Monitoring		
Chronic Wasting Disease (Caribou)	0 (104)	0 (75)
Rabies (canids)	4 (17)	5 (57)
Trichinella (carnivores)	76.6% of wolverines +ve n/a grizzly bears 7.3% of black bears +ve (282 samples total)	50% of wolverines +ve 72.7% of grizzly bears +ve 4.7% of black bears +ve (140 samples total)
Hunter Submitted Samples	Various diseases detected (200)	Various diseases detected (100)
Small mammal – zoonotic diseases	n/a	Various diseases detected (520)
Giardia (multiple species)	n/a	Pending (~100)
West Nile Virus	n/a	0 (12 weeks of mosquito sampling)
Contaminants		
Moose	Health Advisory Issued (46)	Health Advisory Issued (46)
Caribou	Normal Background Levels (108)	Normal Background Levels (43)

In addition to the above measures, during the 2011-12 year, ENR will measure and report on the following items:

- Enquiries/complaints received in regional offices, as captured in the database
- Patrols per region, as captured in the database
- Participants attending the Traditional Knowledge orientation courses
- Requests for advice and assistance for public education

c) Infrastructure Investments

Activity to Date

Four focus areas are being addressed by capital activities: information technology projects, regional facility development supporting departmental operations, infrastructure to limit environmental liability, and infrastructure to support the forest fire management program.

Infrastructure development activities undertaken in 2008-09 through 2010-11 are as follows:

2008-09 activities and projects:

Project	Category	Community	Progress
Forest Management FMIS/EMBER Modules	Information	Territorial	Continued to 2009-10
Shell Lake Bunkhouse Refit	Regional Facility	Inuvik	Completed
Warehouse – Office	Regional Facility	Paulatuk	Completed
Check Station Canol Road	Regional Facility	Mile 222 – Canol	Carried over to 2009-10– Completed
Trout Lake Attack Base	Fire Management	Trout Lake	Carried over to 2009-10– Completed
Fort Liard Lookout Tower	Fire Management	Fort Liard	Carried over to 2010-11– Completed
Lightning Location Systems	Fire Management	Territorial	Reallocated
Drummed Fuel Storage Containment	Environmental Liability	Fort Smith	Carried over to 2010-11
Drummed Fuel Storage Containment	Environmental Liability	Fort Simpson	Deferred
Licensing Information System (LISIN) Phase I	Information	Territorial	Completed

2009-10 project activities and progress:

Project	**Category**	**Community**	**Status**
Licensing Information System Phase II (LISIN)	Information	Territorial	On Schedule
Forest Management Information System (EMBER, FMIS)	Information	Territorial	EMBER Component Complete
Compliance Management Information System	Information	Territorial	On Schedule
Lightning Location System	Fire Management	Territorial	Completed
Check Station - Canol Road	Regional Facility	Norman Wells	Completed
Patrol Boat	Wildlife	Fort Good Hope	Reallocated

Environment & Natural Resources

Shell Lake - Storage Building	Regional Facility	Inuvik	Completed
River Compound-Office/Warehouse	Regional Facility	Inuvik	Completed
Fort Liard Lookout Tower	Fire Management	Fort Liard	Carried over to 2010-11- Completed
Drum Fuel Storage Containment	Environment	Fort Smith	Carried Over – On Schedule

In addition, ENR completed an Infrastructure Management Plan – Scoping Study, providing the background necessary to conduct an assessment and develop a strategic plan for all infrastructure assets currently held by the department.

Activities under way in 2010-11

Project	Category	Community	Status
Licensing Information System Phase III	Information	Territorial	Continuing Project
Compliance Management Information System	Information	Territorial	Continuing Project
Warehouse Upgrade	Regional Facility	Aklavik	New Project – on schedule
Wildlife Lab/Garage – Interior Refit and Upgrades	Regional Facility	Fort Providence	New Project – on schedule
ENR - Main Office Interior Refit and Upgrades	Regional Facility	Fort Simpson	New Project – on schedule
ENR – Facility Security Fencing	Regional Facility	Fort Simpson	New Project – on Schedule
Biologist Office – Upgrades	Regional Facility	Fort Smith	New Project – on schedule
ENR Main Office – Upgrades and Program Changes	Regional Facility	Fort Smith	Continuing Project
Regional Biology Lab – Code Upgrades	Regional facility	Fort Smith	New Project – on schedule
Swat lake – Environment Compliance Patrol Facility	Regional Facility	Hay River Area	Reallocated to Veira Lake Project
Veira Lake – Enforcement and Compliance Patrol facility	Regional Facility	Fort Smith – Caribou Range	New Project
ENR Regional Office Upgrades	Regional Facility	Norman Wells	New Project – on schedule
Office Warehouse Upgrades	Regional Facility	Paulatuk	Reallocated to Ulukhaktok for 2010-11
Office Warehouse Upgrades	Regional Facility	Ulukhaktok	New Project – on schedule
Regional Warehouse – Deferred Maintenance Upgrades	Regional Facility	Yellowknife	New Project – on schedule
Trout Lake Forest Fire Management Base – Helicopter Landing Area	Regional facility	Trout Lake	New Project – on schedule

Air Tanker Base Workshop – Upgrades	Fire Management	Fort Smith	Deferred for re-design- funds reallocated
Forest Fire Lookout Towers – Engineering and Design	Fire Management	Territorial	New Project – on schedule
Forest Fire Lookout Tower – Installation of a Remote Camera Detection System – 4-Mile Tower	Fire Management	Territorial (Fort Smith)	New Project – on Schedule
Fire Radio Communications Network	Fire Management	Territorial	New Project
Lightning Location System	Fire Management	Territorial	Continuing Project

Planned Activities – 2011-12

Project	Category	Community	Status
Inuvik Region			
Jackfish Lake - E&C - Patrol Facility	Regional facility	Inuvik	New Project
Office-Warehouse Complex - Upgrades	Regional Facility	Paulatuk	New Project – deferred from 2010-11
Dehcho Region			
Forest Fire Management Base - Development	Fire Management	Trout Lake	Ongoing project
Helicopter Landing Area - Aircrew Standby Facility	Fire Management	Fort Simpson	New Project
North Slave Region			
Lac de Gras - E&C - Patrol Facility - New	Regional Facility	Yellowknife	New Project
Yellowknife Warehouse - Upgrades	Regional Facility	Yellowknife	New Project
Sahtu Region			
Helicopter Landing Area - Standby Facility	Fire Management	Norman Wells	New Project
South Slave Region			
Wildland Fire Crew - Standby/Storage Facility	Fire Management	Fort Smith	New Project
Territorial			
Lightning Location System	Fire Management	Territorial	Continuing Project
Communications Network Upgrades	Territorial	Territorial	Continuing Project
Mobile Command Centre - Incident Command	Fire Management	Territorial	New Project

Environment & Natural Resources

ENR intends to complete development of the strategic plan for all infrastructure assets held by the department. This activity was deferred in 2010-11 due to shortages of capacity to complete the work.

This plan will form the basis of the future capital planning process for ENR, will address the categories of regional facilities, information technology, environmental liability mitigation, and will support the forest fire management program.

The plan will consider:

- Regional Operations Complexes (e.g. administrative facilities, field operations facilities, remote service facilities);
- Environmental Liability Risk Mitigation; and
- Forest fire management infrastructure, including Forest Fire Lookout Towers and detection facilities, ENR's radio communications network supporting both fire management and regional field operations, and air tanker program support facilities.

d) Legislative Initiatives

Activity to Date

Species at Risk (NWT) Act

The NWT *Species at Risk (NWT) Act* was introduced in the Legislative Assembly in the winter session of 2009 and passed by the Legislative Assembly in June 2009. The new Act came into effect in February 2010. Staff for the new Species at Risk Secretariat were hired in February 2010. The Species at Risk Committee was appointed and met for the first time in March 2010.

The Conference of management Authorities approved the identification of four species that will be initially be assessed. Status reports will be prepared for each of these four species during the 2001-12 fiscal year. The Conference of Management Authorities met for the first time in June 2010.

Wildlife Act

A working group was set up in January 2009 with Aboriginal governments and wildlife co-management bodies to revise the *Wildlife Act*. Since then, eleven meetings have been held. A public document was released in July 2010 outlining the main elements of the bill. Draft legislation will be released for public review in fall 2010. It is anticipated that the new *Wildlife Act* will be introduced into the legislature in the winter of 2011.

Forest Policy and Legislative Review

The existing *Forest Protection Act* and *Forest Management Act* do not provide the tools necessary to manage forest resources consistent with federal commitments to sustainable forestry, the GNWT Sustainable Development Policy and forest management principles in use today. None of the legislation adequately addresses consultation with Aboriginal governments.

During fiscal year 2009-10, background research and scoping of issues was completed using a contract legislation specialist. The review of legislation and policy principles in comparative jurisdictions will provide a background of information for use in the discussions for the NWT.

During fiscal year 2009-10 and 2010-11, Department staff, in conjunction with legislation specialists from the Department of Justice, developed a revision to the *Forest Management Regulations* to address the issue of incidental use of forests arising from industrial and other development on the landscape. ENR intends to complete consultation and review of the proposed amendments, with implementation in fiscal year 2010-11.

During 2010-11, ENR will develop policy discussion papers and templates and continue research and accumulation of technical information in forest management and protection legislation to inform future legislation and policy development. The completion of the Forest Fire Management Program Review will provide policy and legislative concepts for consideration in the new legislation.

Environment & Natural Resources

Waste Reduction and Recovery Act

Single-use retail bag regulations were established for grocery stores in January 2010. During 2010-11, the single-use retail bag program will be expanded to include all retailers in the NWT. Containers for milk and milk substitutes were added to the Beverage Container Program, through amendment of the Beverage Container Regulations, in February 2010.

Planned Activities – 2011-12

Species at Risk (NWT) Act

The Species at Risk (NWT) Act was passed by the Legislative Assembly in June 2009. During 2011-12 implementation of assessment, listing, management, and recovery processes under the new Act will be well underway. Annual reports of actions of Species at Risk Committee and the Conference of Management Authorities will be provided to the Legislative Assembly.

Wildlife Act

The new *Wildlife Act* is expected to be introduced into the Legislative Assembly early in 2011. During 2011-12 a three-year review of the regulations will be undertaken to bring regulations in the line with the new act. The new *Wildlife Act* will be implemented in summer 2012.

Forest Policy and Legislative Review

ENR will continue background research and accumulation of technical information and development of policy templates in support of future working teams who will be tasked to proceed with the policy and legislation development. The target will be to have ready the technical background for an integrated management working group to guide the process of developing a sound forest management policy meeting collective objectives for sustainable management. The integrated group is proposed to include participation from land claim organizations, wildlife co-management boards established under land claim agreements, and the Northwest Territory Métis Nation.

Waste Reduction and Recovery Act

In 2011-12, ENR will prepare and distribute information and materials on potential e-waste programs and obtain public and retailer input on program options.

e) Human Resources

Overall Human Resource Statistics

All Employees

	2010	%	2009	%	2008	%	2007	%
Total	251	100	257	100	252	100	253	100
Indigenous Employees	163	65	169	66	169	67	168	66
Aboriginal	122	49	128	50	132	52	133	52
Non-Aboriginal	41	16	41	16	37	15	35	14
Non-Indigenous Employees	88	35	88	34	83	33	85	34

Note: Information as of March 31 each year.

Senior Management Employees

	2010	%	2009	%	2008	%	2007	%
Total	14	100	13	100	12	100	12	100
Indigenous Employees	11	79	9	67	6	50	5	42
Aboriginal	5	36	4	34	3	25	3	25
Non-Aboriginal	6	43	5	33	3	25	2	17
Non-Indigenous Employees	3	21	4	33	6	50	7	58
Male	12	86	10	75	9	75	9	75
Female	2	14	3	25	3	25	3	25

Note: Information as of March 31 each year.

Non-Traditional Occupations

	2010	%	2009	%	2008	%	2007	%
Total	128	100	134	100	135	100	140	100
Female	19	15	22	16	18	13	20	14
Male	109	85	112	84	117	87	120	86

Note: Information as of March 31 each year.

Employees with Disabilities

	2010	%	2009	%	2008	%	2007	%
Total	1	0.4	1	0.4	1	0.4	1	0.4

Note: Information as of March 31 each year.

Position Reconciliation

The information below differs from the employee information on the preceding page; Human Resource information reflects actual employees as of March 31 each year. The information presented below reflects position expenditures approved through the budget process for each fiscal year, including positions that are vacant.

Active Positions

Summary:

	2010-11 Main Estimates	Change	2011-12 Business Plan
Total	299	8	307
Indeterminate full-time	194	2	196
Indeterminate part-time	10	-1	9
Seasonal	95	7	102

Adjustments during the Year:

Position	Community	Region	Added/ Deleted	Explanation
NEW-Land Use Planning Analyst	Yellowknife	Headquarters	Added	Strategic Initiative
0199 – PAS Coordinator	Yellowknife	Headquarters	P/T to F/T	Strategic Initiative
NEW-Forest Fire Mgmt Clerk	Fort Providence	South Slave	Added	Internal Reallocation
NEW-Forest Fire Mgmt Clerk	Lutselk'e	North Slave	Added	Internal Reallocation
NEW-Forest Fire Technician	Fort Providence	South Slave	Added	Internal Reallocation
NEW-Forest Fire Technician	Hay River	South Slave	Added	Internal Reallocation
NEW-Air Attack Officer	Fort Smith	South Slave	Added	Internal Reallocation
NEW-National Certified Air Attack Officer	Fort Smith	South Slave	Added	Sunset 2014-15 Internal Reallocation
NEW-National Certified Air Attack Officer	Fort Smith	South Slave	Added	Sunset 2014-15 Internal Reallocation

Other Human Resource Information

One of the stated priorities of the Legislative Assembly is to "improve human resource management within the GNWT through training, career planning, and encouraging innovation by employees". To address this priority, the Department of Human Resources has launched a long-term human resources strategy for the public service entitled, *20/20: A Brilliant North*. Among other initiatives, this strategy provides a framework for the development of departmental human resource plans, including succession plans and affirmative action plans.

The tables below indicate statistics on departmental human resource activities with respect to summer students, interns, and transfer assignments for 2010. The information is current as of July 2010.

Summer Students				
Total Students	Indigenous Employees (Aboriginal + Non Aboriginal	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
39	37	19	18	2

Interns				
Total Interns	Indigenous Employees (Aboriginal + Non Aboriginal	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
3	3	1	1	1

Transfer Assignments				
Total Transfer Assignments	Indigenous Employees (Aboriginal + Non Aboriginal	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
18	13	9	4	5

Activities Associated with Staff Training & Development

In July 2009, a Draft Training Strategy and Implementation Plan was developed for the department. The Strategy and Plan provides a framework ensuring that training is developed and delivered in a strategic, coordinated and systematic manner. The Strategy proposes to address department-wide training with an initial focus on training in four areas: certifications, appointment-related competencies, and territorial and federal legislation and regulations.

Through an internal reallocation of resources, a position for a training coordinator will be created to finalize the Training Strategy and Implementation Plan, and to begin implementation. Long-term implementation considerations will look at on-going funding sources. Implementing the Strategy will be linked with the development of three departmental plans: the Human Resource Plan, the Succession Plan, and ultimately, the Strategic Plan.

f) Information System & Management

Overview

Through the establishment of Shared Services, the Departments of Industry, Tourism and Investment (ITI) and Environment and Natural Resources (ENR) share information management resources. The Informatics Division provides information management and information services to both Departments under an interdepartmental agreement. Services include Records and Library Services, Geomatics and Geographic Information Systems and analysis, Information Systems development, implementation and operations, Internet and Intranet Development and support, and strategic advice and guidance on the use of information and technology in support of programs and services. This approach allows for increased synergies between Departmental systems and encourages a strong desire to share and collaborate on technology initiatives. To date, this approach has been very successful and has resulted in multi-department systems platforms such as LISIN (Licensing Information System) and EATS (Environmental Assessment and Tracking System).

The following table lists the major information systems and applications that support ENR activities.

System Name	System Description
Forest Management Information System	Management Information System to assist the Forest Management division in decision support and operational management of our forests and related resources.
Environmental Assessment Tracking System (EATS)	Multidepartment system to support GNWT participation in environmental assessments and related activities.
Licensing Information System (LISIN)	System for Issuing and tracking licenses and permits such as hunting and fishing licenses and tags.
Compliance Management Information System	Used to track and monitor progress on all occurrences, bear reports, officer patrols and other enforcement related of both Parks and Wildlife Officers.
EMBER	Wildfire financial and logistical support system to manage and track departmental activities related to wildfires.
Air Monitoring System	Tracks and reports on measured air quality from monitoring stations across the NWT and provide quantitative results for reporting purposes.
Wildlife Management Information System	A web and GIS based system to store, analyze and distribute information and data related to wildlife studies.
Spills Database	System for tracking and reporting of hazardous waste spills in the NWT.
Integrated Landscape Management System	GIS and Information Portal supporting the Land Use Framework and sharing information related to the geography, and environment of the NWT.
Fur Harvest Database	Tracks the results of annual fur harvests

Planned Activities - 2011-12

In addition to organizational improvement activities building on the improved planning and project management disciplines, the Informatics Division is undertaking the following major information management projects.

Integrated Landscape Management (ILM) System Enhancements

Formally titled the Land Use Framework Decision Support Tools, the Integrated Landscape Management system was introduced during 2010-11 to enable the collection and sharing of data and information related to land use. The system supports a collaborative shared approach to decision-making and allows departments to share their information relative to the Land Use Framework. During 2010-11, the focus was on implementing the technology services to support the vision and to implement the governance structure necessary to support such a shared approach to managing this information. During 2011-12, system enhancements will include the development of line of business applications for the analysis and presentation of information, and pursuing partnerships with other information producers such as the Land and Water Boards, Federal Government Departments, and Aboriginal Governments to support further integration, collaboration, and sharing.

Electronic Records Management

ENR and ITI are two of the lead Departments working on a GNWT-wide initiative to implement an electronic records management system. The primary objective of the system is to allow the efficient storage and retrieval of information. During 2010-11, the GNWT is implementing an electronic records management system as a pilot in Public Works and Services. Based on the success of the pilot, the departments will be deploying Electronic Records Management services within ENR and ITI to support improvements to records management practices and allow for improved efficiency in handling electronic information.

Wildlife Management Information System (WMIS)

During 2010-11, the Informatics Division is completing a review of the Wildlife Information Management System. Based on the results of that review a plan to enhance and update WMIS will be developed. As WMIS is a capital asset, funding for the initiative will not be available until the 2012-13 fiscal year at the earliest; however, extensive effort to prepare for the project will begin during 2011-12 including detailed business requirements and analysis, requirements definition, and preparing contracting documents as appropriate.

Environmental Assessment Tracking System (EATS)

As part of the routine lifecycle management of the system, Informatics will undertake a review and assessment of EATS to identify incremental enhancements that may be necessary to support changes to business practices and improve or increases system functionality. Assessment will lead to a capital request for funding to enhance the system during the 2013-14 fiscal year.

EMBER

EMBER is the wildfire management system in place within Forest Management. EMBER was implemented during the spring of 2010. A post implementation review of EMBER at the end of the first fire season will allow the department to determine necessary enhancements to address functional gaps in the original design. A capital submission to correct deficiencies will be prepared for a 2012-13 fiscal year project. During 2011-12, Informatics will be heavily engaged in pre-project planning including detailed business requirements and analysis, requirements definition, and preparing contracting documents as appropriate.

Fur Harvest Database

The Fur Harvest database is used by ENR and ITI to track furs harvested in the NWT and to support their sale through the Genuine Mackenzie Valley Fur Program. That system will be redeveloped to enhance the system functionality, update the underlying technology, enhance the system functioality, and address issues in the current application such as ease of use, scalability, and high maintence and support efforts.

Website enhancements and updates

ENR and ITI operate a variety of websites to support their program goals and objectives. It is anticipated that a review of the web site strategies and approaches during 2010-11 will lead to enhancements and updates to current websites to improve access to information and services of the departments.

Contribution Tracking and Management System

A 2010-11 review of the ITI contribution tracking and reporting requirements will lead to a system development project the following year to implement a contribution tracking system to increase reporting efficiency and introduce contribution program performance management in support of ITI contribution programs such as the SEED program and the Tourism Diversification Fund.

Contract Registry System

The Department of Finance will be introducing two new modules for the GNWT Financial Management System (SAM) to support Strategic Sourcing and Contracting. As a result, modifications will be required to the Contract Registry System to enable integration of the two systems and support contract reporting needs of the Government.

4. FUTURE STRATEGIC DIRECTION

The environment continues to rank highly on the agenda of Canadians. Even in the midst of one of the worst recessions in recent memory, residents continue to highlight the importance and value of the environment. While this sentiment is prevalent throughout Canada, the issue is particularly important in the NWT due to the cultural, spiritual, and economic ties that residents of the NWT have to the environment.

Multiple levels of government manage the environment in the NWT. The Department of Environment and Natural Resources (ENR) is the lead department within the Government of the Northwest Territories (GNWT) responsible for the protection and promotion of the environment and our natural resources. ENR has an aggressive agenda over the coming years to ensure the protection of the NWT environment. Our activities will focus on climate change mitigation and adaptation, addressing barren-ground caribou declines, protecting territorial waters, establishing a modern policy and legislative framework for resource management, engaging in and preparing for devolution, and continuing to build on and improve ENR's relationship with Aboriginal and community governments.

Climate change is affecting many aspects of the NWT environment, and ENR will be under constant scrutiny to find new ways of mitigating and adapting to the effects of climate change. In fact, NWT residents are already seeing many environmental changes that are consistent with climate change predictions, including changes in sea ice, permafrost, and weather. By exploring, designing and implementing wind, biomass and alternative energy programs, ENR hopes to lead the GNWT's efforts to significantly reduce greenhouse gas emissions in the NWT. In addition, the development of an NWT Climate Change Adaptation Plan will establish mechanisms to provide information to and support decision-makers at all levels to incorporate climate change considerations into their activities.

Waste recovery and recycling reduces our use of raw materials, saves landfill space, reduces emissions of greenhouse gases and other pollutants, and provides local business opportunities. Consultations undertaken by ENR showed that NWT residents are eager to see government action in expanding waste reduction programs. ENR will continue to look at other waste recovery and reduction opportunities with the goal of ongoing reduction of waste products entering community landfills.

Effective protection and recovery plans are required for species of plants and animals living in the NWT. Caribou, especially barren-ground caribou populations, are the most prominent among these, given their important role in the cultural, economic, and spiritual lives of many NWT residents. ENR is working with neighbouring jurisdictions and Aboriginal governments to develop common management plans and actions, including the Five-Year NWT Barren-Ground Caribou Management Strategy 2011-2015, which will ensure human activities do not impact the health or productivity of these wildlife species.

NWT residents value clean and plentiful water as a mainstay to their well-being. The quality and quantity of water resources and the health of aquatic ecosystems are of growing concern as development pressures increase within the NWT and elsewhere. To address these issues, ENR has developed an NWT Water Stewardship Strategy, and is actively engaging in negotiations with transboundary water managers to ensure the protection of this valuable resource.

New legislation is required to bring sustainability, impacts on forest resources, forest ecology, biodiversity, wildland fire management, and climate change directly into ENR's mandate and role. Priority is being given to reviewing and updating the Wildland Fire Management functions of the forest management program. In order to manage the impacts on NWT forests from industrial development activity, ENR is currently developing an appropriate forest use authorization considering the effects of industrial activity on northern forests within the Department's mandate and the GNWT's authorities. The Department is continuing its work on a forest legislative framework, required elements and policies needed to ensure management adaptation with respect to a changing climate. A new Wildlife Act will also be introduced to the Legislative Assembly in early 2011. These new and amended pieces of legislation will facilitate the sustainable and long-term management of the NWT's natural resources.

All of this will transpire as the GNWT continues to negotiate the devolution of lands and resources. ENR, as the GNWT's primary land and resource management regulatory authority, will be a key department in a post-devolution NWT. It will have added responsibilities related to land and resource management including land use planning, the promotion and implementation of the NWT Protected Areas Strategy, regulatory improvement, water management, and environmental stewardship. Key over the coming years will be the development of detailed plans to ensure the implementation of a devolution agreement is as smooth as possible. Some of this work has already begun as ENR and the Department of Executive engage in the development of the Land Use Framework for the NWT. As well, a critical component of the planning process will be dealing with the human resource implications of numerous federal employees transferring to the GNWT. Succession Planning and staff retention and recruitment will continue to challenge departments like ENR with its aging and highly specialized workforce. The development of ENR's departmental Human Resource plan should help facilitate this transition.